This printed version of the Schedule of Classes is current as of 12/19/22 1:42 PM.

AASP African American Studies Fall 2022

AASP100 Introduction to African American Studies

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	Shane Walsh MWF 10:00am - 10:50am	Seats (Total: 35) TYD 1132
0201	Shane Walsh MWF 12:00pm - 12:50pm	Seats (Total: 35) ASY 3207
0301	Shane Walsh MWF 2:00pm - 2:50pm	Seats (Total: 35) JMZ 2206
0401	George Kintiba TuTh 12:30pm - 1:45pm	Seats (Total: 30) LEF 2166
0501	Jason Nichols TuTh 11:00am - 12:15pm	Seats (Total: 35) SQH 1121
0601	Jason Nichols TuTh 2:00pm - 3:15pm	Seats (Total: 35) ARC 1103

AASP100H Introduction to African American Studies

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

0101	George Kintiba TuTh 12:30pm - 1:45pm	Seats (Total: 5) LEF 2166

AASP101 Public Policy and the Black Community

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SB | General Education: DSHS

Formerly: AASP300.

The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.

0101	Ashley Newby TuTh 11:00am - 12:15pm	Seats (Total: 35) SYM 0215
0201	Dorith Grant-Wisdom TuTh 11:00am - 12:15pm	Seats (Total: 20) KEY 0124

AASP187 **The New Jim Crow: African-Americans, Mass Incarceration and the Prison Industrial Complex**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

Recommended: AASP100.

Students will examine the birth of the racial caste system following the abolition of slavery, the parallels between the racial hierarchy of the Jim Crow system and contemporary mass incarceration, and the rise of the prison industrial complex as a multi-billon business which thrives on the oppression of low-income populations and poor communities of color.

0101	Joseph Richardson Tu 3:30pm - 6:00pm	Seats (Total: 30) TYD 1101

AASP200 **African Civilization**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A survey of African civilizations from 4500 B.C. to present. Analysis of traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of the influence of traditional African social systems on modern African institutions as well as discussion of contemporary processes of Africanization.

0101	George Kintiba TuTh 3:30pm - 4:45pm	Seats (Total: 40) TYD 1102
FC01	George Kintiba TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TLF 1101

AASP202 **Black Culture in the United States**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 30) MMH 1304 ONLINE
0102	Robert Choflet MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 35) KEY 0103 ONLINE
0103	Sharon Harley TuTh 11:00am - 12:15pm	Seats (Total: 32) JMZ 0103
0104	Angel Dunbar TuTh 2:00pm - 3:15pm	Seats (Total: 35) EGR 0135

AASP202H **Black Culture in the United States**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

The course examines important aspects of African American life and thought which are reflected in African American literature, drama, music and art. Beginning with the cultural heritage of slavery, the course surveys the changing modes of black creative expression from the 19th-century to the present.

0101	Robert Choflet MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 5) MMH 1304 ONLINE

AASP210 **Intro to Research Design and Analysis in African American Studies**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	

Introduces students to quantitative and qualitative research methods used in social science with a focus on Black populations and African American Studies Research. Uses practical exercises, such as class surveys and mock focus groups, to examine fundamental concepts of the research process from conceptualization of research questions to interpretation of data and research articles. The course is designed for undergraduate students with little or no background knowledge in social science research methods.

0101	Angel Dunbar TuTh 9:30am - 10:45am	Seats (Total: 25) TLF 1101

AASP230 **Social (In)Justice and African-American Health and Well-Being**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP, SCIS

African Americans suffer worse outcomes than non-Hispanic whites on nearly every health measure and outcomes that link to overall well-being like depressive symptoms or homicides. Health disparities are experienced by other underrepresented minority groups, but because of the unique historic and current experiences of African Americans, the determinants and solutions to African American health disparities are unique. The premise of this course is that African American health disparities are due to social injustices perpetuated on the institutional level that have permeated the lived experiences of African Americans leading to racial disparities in health and well-being. As such, the solutions on the both policy, and community, level must have a social justice approach.

0101	Ashley Newby	Seats (Total: 60)
	TuTh 9:30am - 10:45am	SQH 1119

AASP298B **Constructions of Manhood and Womanhood in the Black Community**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO, D	General Education: DSHS, DVUP

Cross-listed with: AASP265. Credit only granted for: WMST265, AASP298B, WGSS265 or AASP265. Formerly: WMST265.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

0101	Michelle Rowley	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ONLINE

AASP298C **African-American History to 1865**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DVUP

Cross-listed with: HIST254. Credit only granted for: HIST254 or AASP298C.

Survey of the principal developments in the history and culture of the peoples of African descent in colonial North America and the United States to 1865. Examines the African past, the Atlantic slave trade, variation in slavery, the growth of free black communities, the transformations of families and cultural forms, and patterns of resistance.

0101	Christopher Bonner	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0116

AASP298L **African-American Literature and Culture**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: ENGL234. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with ENGL234. Credit granted for AASP298L or ENGL234.

0201	Fredrick Cherry Jr	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	KEY 0125

AASP298M **Martin Luther King Jr.**

Credits: 3 | Grading Method: Regular, Pass-Fail | , D | General Education: DSHS

Cross-listed with: HIST108C, AMST189C. Credit only granted for: HIST108C, AASP298M, or AMST189C.

Examines the life and work of Martin Luther King, Jr. We immediately rethink the image of King who liberals and conservatives construct as a dreamer of better race relations. We engage the complexities of an individual, who articulated a moral compass of the nation, to explore racial justice in post-World War II America. This course gives special attention to King's post-1965 radicalism when he called for a reordering of American society, an end to the war in Vietnam, and supported sanitation workers striking for better wages and working conditions. Topics include King's notion of the "beloved community", the Social Gospel, liberalism, "socially conscious democracy", militancy, the politics of martyrdom, poverty and racial justice, and compensatory treatment. Primary sources form the core of our readings.

0101	Quincy Mills	Seats (Total: 15)
	TuTh 9:30am - 10:45am	KEY 0117

AASP301 **Applied Policy Analysis and the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AASP101; and (ECON201 or ECON200). Recommended: Completion of one semester of statistics is recommended.

Development and application of the tools needed for examining the effectiveness of alternative policy options confronting minority communities. Review policy research methods used in forming and evaluating policies. Examination of the policy process.

0101	Cecily Hardaway	Seats (Total: 25)
	TuTh 9:30am - 10:45am	HBK 0125

AASP310 **African Slave Trade**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AASP202 or AASP100; or permission of BSOS-African American Studies department. Formerly: AASP311.

The relationship of the slave trade of Africans to the development of British capitalism and its industrial revolution; and to the economic and social development of the Americas.

0101	George Kintiba	Seats (Total: 35)
	W 2:00pm - 4:30pm	HBK 0105

AASP313 Black Women in United States History

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher. Cross-listed with: WGSS314. Credit only granted for: AASP313, WMST314 or WGSS314. Formerly: WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Fall 2020: Also offered as HIST329E. Credit granted for AASP313, HIST329E, or WMST314.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	ONLINE

AASP317 Black in Latin America and the Caribbean

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The goal of this course is to have an understanding of race, color, and blackness across the Americas. We will compare and contrast forms of racial categorization, discrimination, and ideologies, whether in the form of nation-building projects, addressing racial inequality, or sexuality and family formation. We will draw primarily on social science perspectives, including the work of sociologists and political scientists.

0101	Chinyere Osuji	Seats (Total: 30)
	Tu 2:00pm - 3:15pm	ONLINE
	Th 2:00pm - 3:15pm	ONLINE

AASP320 Poverty and African American Children

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: AASP320 or AASP298P. Formerly: AASP298P.

The United States has high levels of child poverty compared to other industrialized nations. Poverty rates are particularly high among African American children. This course focuses on how poverty and race intersect to influence the development of children and youth. Specific topics that we will consider include definitions of poverty, theories about the causes of poverty, racial disparities in child poverty, family functioning in the context of poverty, neighborhood influences, risk and protective processes, and social policies and programs designed to mitigate the impact of poverty.

0101	Cecily Hardaway	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 1117

AASP370 **Spike Lee's Joints**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: CINE353. Credit only granted for: AASP370 or CINE353.

In offering extended formal considerations of Spike Lee's cinematic oeuvre--in particular his uses of light, sound, and color--this course is interested in how various modes of critical inquiry can enable or broaden our cultural, political, or historical engagement with a film. We will pay special attention to the question of what it means to encapsulate a specific cultural moment, particularly in relation to differing demands of fictional and non-fictional representation, in sound and image. As well, we will attend to how Lee's aesthetic techniques, cultural politics, and wide-ranging critique of the American racial caste system helps us think about the role of film in ongoing struggles for racial justice.

0101	John Drabinski	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 2123

AASP386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-African American Studies department; and junior standing or higher.

0101	Marshal Washington	Seats (Total: 10)
	F 2:00pm - 4:30pm	TLF 1102

AASP397 **Senior Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-African American Studies department.

Directed research in African American Studies resulting in the completion and defense of a senior thesis.

Contact department for information to register for this course.

AASP398B **Selected Topics in the African Diaspora; Black Immigrants: Challenges and Impacts**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with IMMR319D. Credit only granted for AASP398B or IMMR319D. How does immigration affect Black communities in the United States? How are foreign Black affected by living in the United States? Students will learn about: US history of immigration policy; pull and push factors driving Black migration; comparisons in socioeconomic outcomes between foreign and native Blacks; and differences between 1st and 2nd generation Black immigrants.

0101	Chinyere Osuji	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ONLINE

AASP398G **Selected Topics in the African Diaspora; Gender, Labor and Racial Identities in Diaspora Communities**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328K. Credit only granted for AASP398G or AMST328K.

0101	Sharon Harley	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	HBK 0108

AASP398Q **Selected Topics in the African Diaspora; Black Baltimore in the Post Racial U.S: African American Urban Culture in the Age of Obama**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with AMST328M. Credit only granted for AASP398Q or AMST328M.

0101	Robert Choflet	Seats (Total: 30)
	W 3:00pm - 5:30pm	PLS 1130

AASP398V **Selected Topics in the African Diaspora; African American Public History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Analysis of the historical experiences and cultures of Africans in the diaspora.

Cross-listed with HIST329J and AMST328F. Credit only granted for HIST329J, AASP398V, or AMST328F. This course analyzes the field of public history through the lens of African American history, considering the myriad ways beyond the classroom that African American history is circulated and consumed by the general public. By examining museums, historic sites, monuments, films and documentaries, and the digital landscape, students will examine and critique how historical narratives focusing on the experiences of peoples of African descent in the United States have been constructed in public spaces.

0101	Dennis Doster	Seats (Total: 25)
	Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	ONLINE TLF 1101

AASP399 **Research in African-American Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

African American Studies research labs are the settings in which the most recent scholarly work of each faculty member takes place with the enterprise of conducting and disseminating research. Faculty members operate as the team leader and faculty mentor working with undergraduate students around a specific research topic or project. Students will have the opportunity to assist with reviewing literature, data gathering, data management, coding analysis, and the preparation of conference presentations and scholarly publications while advancing their own scholarship and interests, cultivating integrative skills, and gain training in a specialized aspect of the African American Studies discipline, which may not be otherwise available from other experiences on campus.

Contact department for information to register for this course.

AASP478E **Humanities Topics in African American Studies; Black Digitalities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

Cross-listed with ENGL438B. Credit only granted for ENGL438B or AASP478E.

0101	Marisa Parham	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0221

AASP498O **Special Topics in Black Culture; African American and Latino Social, Cultural and Political Relations: 1940 to Present**

Credits: 3 Grading Method: Regular

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with USLT498E. Credit granted for AASP498O or USLT498E.

0101	Jason Nichols W 4:00pm - 6:30pm	Seats (Total: 30) KEY 0116

AASP498Y **Special Topics in Black Culture; Black Queer Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

Cross-listed with LGBT448L. Credit only granted for LGBT448L or AASP498Y.

0101	Sydney Lewis MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 30) SPH 0307 ONLINE

AASP499N **Advanced Topics in Public Policy and the Black Community; News Coverage of Racial Issues**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

Restriction: Junior standing or higher.

0101	Anne Rosen TuTh 9:30am - 10:45am	Seats (Total: 25) KNI 3202

AAST Asian American Studies Fall 2022

AAST200 **Introduction to Asian American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail CORE: SB, D General Education: DSHS, DVUP

Cross-listed with: AMST298C. Credit only granted for: AAST200 or AMST298C.

The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes, viewed from an interdisciplinary perspective.

0101	Binod Paudyal TuTh 11:00am - 12:15pm	Seats (Total: 40) HBK 0109
0201	Jennifer Cho TuTh 2:00pm - 3:15pm	Seats (Total: 40) BPS 1238

AAST201 **Asian American History**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH, D	General Education: DSHS, DVUP

Cross-listed with: HIST221. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans and Asians in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Patrick Chung TuTh 3:30pm - 4:45pm	Seats (Total: 40) MTH B0421

AAST233 **Introduction to Asian American Literature**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Cross-listed with: ENGL233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	James Rankin TuTh 9:30am - 10:45am	Seats (Total: 30) CHM 2201

AAST262 **Asian American Psychology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	

Cross-listed with: PSYC262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 60) JMP 3201

AAST351 **Asian Americans and Media**

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSSP, DVUP

Credit only granted for: AAST351, AAST398M or AAST398N. Formerly: AAST398M, AAST398N.

From yellow peril invaders to model minority allies, Asian Americans have crafted their own dynamic cultural expressions in a number of media from film, television, and music to fashion, sports, and food that reveal and contest the contradictions of the U.S. nation-state. Asian American culture also uniquely sits at the nexus of immigration flows and digital technologies, providing a transnational lens to view the US place in the world. This advanced course, then, will introduce students to the study and practice of Asian American cyktyre as multiple , hybrid, and heterogeneous. It will do so through three sections: section one will introduce students to classical, cultural, and media concepts as well as relevant keywords outlined by Asian American Studies scholars; section two will review the work of Asian American cultural theorists; section three will focus on analyses of particular Asian American cultural productions. In doing so, students will gain an understanding of the shifting and interlocking tensions among the local, the national, and the global that form the cultural geographies of Asian America.

0101	Binod Paudyal	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 1112

AAST355 Asian Americans in Film

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHU, DVUP

Cross-listed with: AMST328W. Credit only granted for: AAST355, AAST398L or AMST328W. Formerly: 398L.

Explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent and Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representations of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools of film analysis mise-en-scene, cinematography, editing and sound work together to create meaning in moving images. It examines how these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. How films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

0101	Jennifer Cho	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 0123

AAST363 Filipino American History and Biography

Credits: 3	Grading Method: Regular, Pass-Fail	General Education: DSHS, DVUP

Cross-listed with: AMST323. Credit only granted for: AAST363, AMST323, AAST398D, or AMST328J. Formerly: AAST398D.

Focus is placed on Filipino American experiences with an emphasis on identity, community building and organizing to influence public policy We will cover pertinent events from the US and Philippine history in order to understand the impact of colonialism, migration, immigration and assimilation on Filipino Americans.

0101	Gemirald Daus Tu 5:00pm - 7:30pm	Seats (Total: 35) ASY 2309

AAST378 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Field experience/internship in professional organizations and appropriate private and governmental agencies serving the Asian American community.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 2)

AAST388 **Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed, independent study in Asian American Studies resulting in the completion of an original research paper.

0101	Janelle Wong Contact instructor or department for details.	Seats (Total: 2)
0201	Binod Paudyal Contact instructor or department for details.	Seats (Total: 2)

AAST394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3 Grading Method: Regular General Education: DVCC

Cross-listed with: AMST324, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong TuTh 3:30pm - 4:45pm	Seats (Total: 30) ESJ B0320

AAST498G **Advanced Topics in Asian American Studies; Asian American Women and Gender**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

0101	Jennifer Cho	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	BPS 1234

AAST498W **Advanced Topics in Asian American Studies; South Asian American Literature and Popular Culture**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

0101	Binod Paudyal	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	KEY 0119

AGNR Agriculture and Natural Resources Fall 2022

AGNR200 **AGNR 2+2 Program Extended Orientation Seminar**

Credits: 1

Grading Method: Regular

Prerequisite: Must be a first semester international student enrolled in the AGNR 2+2 Program. Restriction: Must be a first year international student enrolled in the College of Agriculture and Natural Resources 2+2 Program. Additional information: It is strongly recommended that AGNR 2+2 students take AGNR 200 during the first semester at the University. One class meeting per week. This courses is initiated by International Programs and will be coordinated in conjunction with the College of AGNR.

Introduces AGNR 2+2 students to University and "American" life. Assists with their successful transition to the College and Agriculture and Natural Resources and the University of Maryland. Helps students to understand their place in AGNR at to learn about the resources available to them.

0101	Ann Leger	Seats (Total: 25)
	M 4:00pm - 5:00pm	Location: TBA

AGNR301 **Sustainability**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: PLCY301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Caroline Boules	Seats (Total: 165)
	TuTh 12:30pm - 1:45pm	JMZ 0220

AGNR388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

0101	Evelyn Cooper	Seats (Total: 5)
	Contact instructor or department for details.	

AGNR499 **Special Problems; Special Problems**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

0102	Evelyn Cooper	Seats (Total: 1)
	Contact instructor or department for details.	

AGNR630 **Teaching-Learning in Adult and Continuing Education**

Credits: 3 Grading Method: Regular

Formerly: AGRI630.

The teaching/learning process in adult continuing education. Instructional techniques and methodologies appropriate for adults. The curriculum development process. Issues and priorities in adult continuing education.

0101	Melissa Welsh	Seats (Total: 24)
	Class time/details on ELMs	ONLINE

AGST Agricultural Science and Technology Fall 2022

AGST130 **Did Yeast Create Civilization?**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Recommended: CHEM103, CHEM131, CHEM135, or CHEM146. Cross-listed with: PLSC130. Credit only granted for: AGST130 or PLSC130.

Fermented foods have played a major role in the transition from nomadic to settled agrarian societies, the establishment of social and religious customs, the expansion of empires, and modern economies. To what extent are our past and current attitudes towards fermented foods rooted in historical and cultural imprints? Explore the central role of fermentation in human history and culture, the basic microbiological processes underlying fermentation processes, and the processes used to produce and distribute fermented foods. Find out how the fruits, grains, and dairy products used to produce fermented foods are grown and selected. Students will learn about the development and modern use of fermented dairy products, pickles, bread, tea, chocolate, wine, beer, distilled liquors, and pharmaceutical/manufactured products.

0101	Angus Murphy, Wendy Peer	Seats (Total: 60)
	M 1:00pm - 1:50pm Class time/details on ELMs	ESJ 1215 ONLINE

AGST307 **Mentorship in Agronomy and Career Exploration**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: PLSC101 or (PLSC112 and PLSC113), PLSC407, ENST200, MATH113 or higher, and ENGL101. Recommended: ANSC101 and ANSC103. Restriction: Must be in the Agricultural Science and Technology-Agronomy major (0101A); and must have completed all prerequisite courses with a minimum grade of C-; and must have earned a minimum of 15 credits in the Agricultural Science and Technology Agronomy major; and sophomore or higher standing; and permission of AGNR-Department of Plant Sciences and Landscape Architecture.

An introduction to the Agronomy Mentor Program as well as an introduction to the broad spectrum of career opportunities in agronomic farming. This course is an overview of the Agronomy Mentor Program and students will have the opportunity to learn about various career paths in the agronomic farm industry. Presentations by industry leaders and discussions with farm professionals will be an integral part of this course. Following the completion of this course students will eligible to register for the Mentorship in Agronomy course (AGST308).

To request permission to register for this course, please fill out this form .

0101	Bill Phillips	Seats (Total: 8)
	W 9:00am - 9:50am	PLS 1125

AGST333 **Crafty Beverage Crops**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: PLSC110 or PLSC112; or 1 course in BSCI, BCHM, BIOL.

From soda to wine, a scientific introduction to "crafty beverage crops". Students will expand their horticulture knowledge and gain an appreciation for craft beverages and the plants that made them. Topics include history, biology, production and management techniques, harvest, storage and market potential for crafty beverage crops.

0101	Diana Cochran	Seats (Total: 60)
	TuTh 3:30pm - 4:45pm	PLS 1140

AGST440 **Exploring Maryland Agriculture, Agricultural Industry, and Agricultural Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explore the mission and history of the Land Grant System as well as current work conducted through the University of Maryland to extend research to citizens. Often referred to as America in miniature, Maryland boasts diverse people, agricultural practices, cultures, and ecosystems which students will examine to perceive the decision making processes within and across ecological systems as well as the development of advisory boards.

0101	Melissa Welsh	Seats (Total: 24)
	MW 3:30pm - 5:00pm	PLS 2137

AGST640 **Analysis of Maryland Agriculture**

Credits: 3 Grading Method: Regular, Audit

An advanced research focused course on examining the mission and history of the Land Grant System as well as appraising the current work conducted through the University of Maryland Extension to extend research to citizens. Often referred to as America in miniature, Maryland boasts diverse people, agricultural practices, cultures, and ecosystems which students will examine to perceive the decision making processes within and across ecological systems. An enriching field practicum with an agricultural agency is required.

0101	Melissa Welsh	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

AMSC Applied Mathematics & Scientific Computation Fall 2022

AMSC460 **Computational Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: CMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Stefan Doboszczak MWF 11:00am - 11:50am	Seats (Total: 32) PHY 2208
0201	Todd Rowland MWF 12:00pm - 12:50pm	Seats (Total: 28) CHM 2201
0301	Christopher Moakler TuTh 2:00pm - 3:15pm	Seats (Total: 28) MTH 0403
0401	Tobias von Petersdorff TuTh 12:30pm - 1:45pm	Seats (Total: 28) MTH B0421

AMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: CMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

Click here for more course information.

0101	Maria Cameron TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 0106

AMSC498A **Selected Topics in Applied Mathematics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Topics in applied mathematics of special interest to advanced undergraduate students.

Contact department for information to register for this course.

AMSC660 **Scientific Computing I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have suitable programming experience, such as in Matlab, Python, C or Fortran. Cross-listed with: CMSC660. Credit only granted for: AMSC660 or CMSC660.

Monte Carlo simulation, numerical linear algebra, nonlinear systems and continuation method, optimization, ordinary differential equations. Fundamental techniques in scientific computation with an introduction to the theory and software for each topic.

0101	Howard Elman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	CSI 2118

AMSC663 **Advanced Scientific Computing I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: AMSC660 or CMSC660; and (AMSC661 or CMSC661). Restriction: Permission of instructor. Cross-listed with: CMSC663. Credit only granted for: AMSC663 or CMSC663.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (CMSC663/CMSC663 and AMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Abhinav Bhatele, Tobias von Petersdorff	Seats (Total: 20)
	TuTh 9:30am - 10:45am	HBK 0109

AMSC666 **Numerical Analysis I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC466 or AMSC466; and MATH410. Cross-listed with: CMSC666. Credit only granted for: AMSC666 or CMSC666.

Approximation theory, numerical solution of initial-value problems, iterative methods for linear systems, optimization.

Click here for more course information.

0101	Eitan Tadmor	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PHY 1219

AMSC673 **Partial Differential Equations I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department. Cross-listed with: MATH673. Credit only granted for: AMSC673 or MATH673.

Analysis of boundary value problems for Laplace's equation, initial value problems for the heat and wave equations. Fundamental solutions, maximum principles, energy methods. First order nonlinear PDE, conservation laws. Characteristics, shock formation, weak solutions. Distributions, Fourier transform.

Offered fall only. Cross-listed with MATH673.

0101	Jacob Bedrossian	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ITV 1100

AMSC689 **Research Interactions in Applied Mathematics and Scientific Computation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

AMSC714 **Numerical Methods For Stationary PDEs**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: One graduate level course in partial differential equations or one graduate level course in numerical analysis or scientific computing; or permission of instructor. Credit only granted for: AMSC 714 or AMSC 614. Formerly: AMSC614. Additional information: This course is a complement to the graduate courses MATH 673 and MATH 674 in PDEs, AMSC 666 in numerical analysis, and AMSC 660 and AMSC 661 in scientific computing.

Topics include: Maximum principle, finite difference method, upwinding, error analysis; Variational formulation of elliptic problems, inf-sup theory; The finite element method and its implementation; Piecewise polynomial interpolation theory in Sobolev spaces; A priori and a posteriori error analyses, adaptivity; Fast solvers; Variational crimes; Mixed finite element methods.

0101	Ricardo Nochetto	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	MTH 0303

AMSC721 **Mathematical Population Biology**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: BIOL721. Credit only granted for: AMSC721 or BIOL721. Additional information: Open to advanced undergraduates by permission of instructor.

The mathematical modeling of real-life phenomena in the natural, engineering, and social sciences often involve having to solve systems of difference or differential equations. These systems are inherently complex, owing to their (typically) high dimensionality and nonlinearity. Hence, their exact solutions are difficult (if at all feasible) to obtain. Consequently, these systems are generally studied using a combination of asymptotic analysis and numerical discretization approaches. This course will cover a broad spectrum of techniques, theories and tools for modeling and analysing real-life phenomena arising in population biology, with emphasis on the study and asymptotic analysis of general classes of unstructured (single species discrete-time and continuous-time models, interacting populations etc.) and structured (spatially-structured, age-structured, sex-structured) population biology models arising in ecology and epidemiology.

0101	Abba Gumel	Seats (Total: 20)
	TuTh 9:30am - 10:45am	BPS 1234

AMSC760 **Applied Statistics Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed one year of graduate study in Applied Statistics. Restriction: Must have project proposal approved by SAC coordinator.

A semester long applied applied statistical project (a minimum 10 hours per week or 120 hours in total), in an internship of collaborative research-laboratory setting working on a substantive applied quantitative project with significant statistical content.

0101	Howard Elman	Seats (Total: 10)
	Contact instructor or department for details.	

AMSC762 **Data Analysis Project**

(Perm req)

Credits: 1 Grading Method: Regular, Sat-Fail

Restriction: Permission of CMNS-Applied Mathematics department; and permission of instructor.

This course cannot be used to meet any of the Applied Statistics Area's seminar requirements. Offered yearly, required of and limited to MS non-thesis and doctoral students in Applied Statistics Area, for whom the resulting projects serve as a Qualifying Exam component. After 5-6 lectures or presentations on components of successful data analyses and write-ups, 3-4 sessions will discuss previous student project submissions. The culminating project, to be completed in a two week period between semesters, is an analysis and written report of one of three project choices made available each year to represent a spectrum of realistic applied statistical problems.

0101	Howard Elman	Seats (Total: 15)
	Contact instructor or department for details.	

AMSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMSC808A **Advanced Topics in Applied Mathematics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

AMSC808N **Advanced Topics in Applied Mathematics; Numerical Methods for Data Science and Machine Learning**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

0101	Maria Cameron TuTh 11:00am - 12:15pm	Seats (Total: 40) ITV 1100	

AMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST American Studies Fall 2022

AMST101 **Introduction American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO, D General Education: DSHU, DVUP

Credit only granted for: AMST101 or AMST201. Formerly: AMST201.

Introduces students to the interdisciplinary field of American Studies by examining concepts such as culture, identity, cultural practices, and globalization, as well as theories underlying these concepts. Engages key themes, especially constructions of difference and identity, cultures of everyday life, and America and the world.

0101	Christina Hanhardt MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 15) TWS 1100 TWS 0330	Discussion
0102	Christina Hanhardt MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) TWS 1100 TWS 0330	Discussion
0103	Christina Hanhardt MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 15) TWS 1100 TWS 0134	Discussion
0104	Christina Hanhardt MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 15) TWS 1100 TWS 0134	Discussion
FC01	Devon Betts F 10:00am - 11:15am Class time/details on ELMs	Seats (Total: 18) TWS 0328 ONLINE	Discussion

AMST189C **Martin Luther King Jr.**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS

Cross-listed with: HIST108C, AASP298M. Credit only granted for: HIST108C, AASP298M, or AMST189C.

Examines the life and work of Martin Luther King, Jr. We immediately rethink the image of King who liberals and conservatives construct as a dreamer of better race relations. We engage the complexities of an individual, who articulated a moral compass of the nation, to explore racial justice in post-World War II America. This course gives special attention to King's post-1965 radicalism when he called for a reordering of American society, an end to the war in Vietnam, and supported sanitation workers striking for better wages and working conditions. Topics include King's notion of the "beloved community", the Social Gospel, liberalism, "socially conscious democracy", militancy, the politics of martyrdom, poverty and racial justice, and compensatory treatment. Primary sources form the core of our readings.

0101	Quincy Mills TuTh 9:30am - 10:45am	Seats (Total: 15) KEY 0117	

AMST202 **Cultures of Everyday Life in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Examine the structures and patterns of everyday life in the U.S., utilizing methods such as ethnography, oral history, survey research, and textual, visual, and material cultural analysis.

0101	Dallas Donnell MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TWS 0134 ONLINE	 Discussion

AMST203 **Popular Culture in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU, DVUP

An introduction to American popular culture, its historical development, and its role as a reflection of and influence on our culture and society.

0201	Kylee Manganiello MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) TWS 0134 ONLINE	 Discussion
FC01	Caroline He F 1:00pm - 2:15pm Class time/details on ELMs	Seats (Total: 18) TWS 0328 ONLINE	 Discussion

FC02	Caroline He F 11:30am - 12:45pm Class time/details on ELMs	Seats (Total: 18) TWS 0328 ONLINE	 Discussion

AMST204 **Film and American Culture Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU, DVUP

Exploration of the American film from a historical perspective, illustrating the motion picture's role as an institutional phenomenon, as a form of communication, and as a source of cross-cultural study.

0101	Susan Pramschufer TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 1203

AMST205 **Material Aspects of American Life**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

FC01	Mateo Arango F 11:30am - 12:45pm Class time/details on ELMs	Seats (Total: 18) EDU 2101 ONLINE	 Discussion
FC02	Mateo Arango F 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 18) EDU 2101 ONLINE	 Discussion

AMST262 **Houses, Schools, and Prisons in American Life**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP, SCIS

This interdisciplinary course explores the role of property, discipline, and punishment in American life. By exploring the ideological underpinnings in property, discipline, and punishment and their manifestations in houses, schools, and prisons we will explore how these entities reflect American society and its values.

0101	Perla Guerrero MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) TWS 1310 TWS 0134	 Discussion

0102	Perla Guerrero MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 15) TWS 1310 TWS 0330	Discussion
0103	Perla Guerrero MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 15) TWS 1310 VMH 1101	Discussion
0104	Perla Guerrero MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 15) TWS 1310 TWS 0134	Discussion

AMST310 **Introduction to Comparative Ethnic and Racial Studies**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, DVUP

Cross-listed with: AAST310. Credit only granted for: AMST310, AAST398F, AAST310, or AMST328L. Formerly: AMST328L and AAST398F.

Introduces students to the study of race and ethnicity in the United States. The class is organized according to the following five units: (1) Introduction; (2) Key concepts; (3) Mechanisms of racial formation; (4) Prevailing myths about race; and (5) Contemporary issues related to race and ethnicity. Through readings, film clips, and presentations, we will explore how the concept of race has developed and endured over time and become familiar with key concepts, such as "race" and "intersectionality". We will attempt to better understand how race is associated with other forms of difference, such as class, gender and ethnicity. We will identify and confront the prevailing myths about race and ethnicity in the United States. Finally, we examine the ways in which contemporary issues reveal the dynamics of race and ethnicity.

0101	Bayley Marquez TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 1122	

AMST315 **Religion in American Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Recommended: AMST101. Credit only granted for: AMST315 or AMST328R. Formerly: AMST328R.

Introduces students to the world's major religious traditions and examines how American culture informs, and is informed by, the variety of religious beliefs and practices in the U.S. This course is primarily concerned with religion as a system of meaning. The focus of the course is not on the history of religion or on analysis of religious texts, but rather on the meaning of a religion to its believers.

0101	Asim Ali TuTh 2:00pm - 3:15pm	Seats (Total: 20) TWS 0134	

AMST320 **(Dis)ability in American Film**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP, DVUP

Credit only granted for: AMST320 or AMST328X. Formerly: AMST328X.

Explores the connection between film and disability through an analysis of independent and mainstream American films in various film genres. Specifically, we will consider how these film representations reflect and/or challenge the shifting social perspectives of disability over the 20th and 21st centuries. Beginning with the presentation of disability as theatrical spectacle in the traveling sideshow and early cinema, we will work our way through film history to develop an understanding of our society's complicated relationship with disability.

0101	Susan Pramschufer	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ASY 3219

AMST324 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3 | Grading Method: Regular | General Education: DVCC

Cross-listed with: AAST394, IMMR394. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ESJ B0320

AMST328F **Perspectives on Identity and Culture; African American Public History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398V and HIST329J. Credit only granted for HIST329J, AASP398V, or AMST328F. This course analyzes the field of public history through the lens of African American history, considering the myriad ways beyond the classroom that African American history is circulated and consumed by the general public. By examining museums, historic sites, monuments, films and documentaries, and the digital landscape, students will examine and critique how historical narratives focusing on the experiences of peoples of African descent in the United States have been constructed in public spaces.

0101	Dennis Doster Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 25) ONLINE TLF 1101

AMST328K **Perspectives on Identity and Culture; Gender, Labor and Racial Identities in Diaspora Communities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398G. Credit only granted for AASP398G or AMST328K.

0101	Sharon Harley TuTh 12:30pm - 1:45pm	Seats (Total: 15) HBK 0108

AMST328M **Perspectives on Identity and Culture; Black Baltimore in the Post Racial U.S: African American Urban Culture in the Age of Obama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

Cross-listed with AASP398Q. Credit only granted for AASP398Q or AMST328M.

0101	Robert Choflet W 3:00pm - 5:30pm	Seats (Total: 30) PLS 1130

AMST328N **Perspectives on Identity and Culture; Introduction to Native American Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Analysis of the cultural aspect of identity formation and the role of individual or community identities in cultural production. Examination of cultural texts such as film, literature, fashion, artifacts, archival records, architecture, monuments, sports, and paintings.

0101	Bayley Marquez TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 1224

AMST328W **Asian Americans in Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVUP

Cross-listed with: AAST355. Credit only granted for: AAST355, AAST398L or AMST328W. Formerly: 398L.

Explores how Asian Americans have historically been represented in the U.S. by Hollywood, and in turn, how independent and Hollywood Asian American filmmakers have represented themselves. It covers the history of racial, gendered, and sexualized representations of Asian Americans in Hollywood, as well as Asian American filmic responses within and outside Hollywood. It also introduces how four basic tools of film analysis mise-en-scene, cinematography, editing and sound work together to create meaning in moving images. It examines how these elements are put together in three different types of films by Asian American filmmakers: narrative, documentary, and experimental. How films function in society to circulate ideas that reproduce and challenge stereotypes about Asian Americans.

0101	Jennifer Cho	Seats (Total: 30)
	TuTh 9:30am - 10:45am	HBK 0123

AMST340 **Introduction to History, Theories and Methods in American Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed AMST201; and 2 courses in AMST. Restriction: Must be in American Studies program; and sophomore standing or higher.

Introduction to the process of interdisciplinary research, including research literatures, questions, first-hand sources and library and analytic methods in American Studies. Each student will craft a prospectus for original research.

0101	Asim Ali	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0330

AMST386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-American Studies department; and junior standing or higher.

0401	Mary Sies	Seats (Total: 10)
	Contact instructor or department for details.	

AMST388 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular

Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

AMST398 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular

Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

Contact department for information to register for this course.

AMST418H **Cultural Themes in America; Cultural Themes in America-Honors**

(Perm req)

Credits: 3 Grading Method: Regular

Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

Prerequisite: At least three credit hours of prior coursework in AMST.

Contact department for information to register for this course.

AMST498B **Special Topics in American Studies; Revolutions and Diasporas**

Credits: 3 Grading Method: Regular

Topics of special interest.

Cross-listed with USLT498R. Credit granted for USLT498R or AMST498B. This course investigates how revolutions in Latin America influenced the history of US immigration, refugee, and asylum policies and how they changed US history, culture, experience, geography, politics and the future.

0101	Nancy Mirabal	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0328

AMST498C **Special Topics in American Studies; Central Americans and the United States: Culture, Politics, and Community**

Credits: 3 Grading Method: Regular

Topics of special interest.

Cross-listed with USLT498D. Credit only granted for AMST498C or USLT498D. With attention to history, memory, politics, and culture, explores the relationships, conflicts, and exchanges of people and power between the United States and the Central American isthmus. Through literature, feature films, documentary films, theatre, poetry, and other mediums, the course investigates the role of the US government and military, as well as US corporate interests and US-backed dictatorships, in the culture, politics, and economy of nations including El Salvador, Nicaragua, Guatemala, and Honduras.

0101	Robert Chester	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 0134

AMST498L **Special Topics in American Studies; Native Americans and US Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail

Topics of special interest.

Examines representations of Native American cultures and their relationships to the United States in feature films produced across the broad span of Hollywood history. Beginning with the silent era and concluding with twenty-first century independent cinema made by Native Americans, we'll consider images of American Indians and US history as they were shaped by shifting historical contexts and ideological agendas.

0101	Robert Chester	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 0134

AMST498V **Special Topics in American Studies; Sex and the City**

Credits: 3 Grading Method: Regular, Pass-Fail

Topics of special interest.

0101	Christina Hanhardt	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0134

AMST601 **Introductory Theories and History in American Studies**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must not be a Graduate Advanced Special Student.

Explores the formative literature, theories, research approaches, and history of American Studies.

0101	La Marr Bruce	Seats (Total: 10)
	Tu 4:00pm - 6:40pm	TWS 0134

AMST628C **Seminar in American Studies; Approaches to Race and Media**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor. Cross-listed with WMST698E. Credit only granted for AMST628C or WMST698E. This class looks at foundational and new interdisciplinary scholarship on race and media. The course will explore topics such as media production, distribution, markets, representation, and audiences.

0101	Eva Hageman	Seats (Total: 15)
	W 4:00pm - 6:30pm	TWS 0134

AMST629I **Seminar in American Studies; Material Culture and Internet Studies**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Jason Farman	Seats (Total: 15)
	M 5:00pm - 7:30pm	TWS 0134

AMST655 **Introduction to Museum Scholarship**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: ANTH655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

For Fall 2008: Additionally cross-listed with INST728T. Credit only granted for ANTH655, AMST655, HIST610, or INST728T.

0101	Diana Marsh	Seats (Total: 20)
	Th 2:00pm - 4:40pm	TWS 0330

AMST659A **Special Topics: Collaborative Curation; The 1856 Project**

Credits: 3 Grading Method: Regular, Audit

This seminar considers the history of curation and curators within the institutional setting of museums and offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years.

Cross-listed with ANTH659A, HIST688A, and INST788A. Credit only granted for AMST659, ANTH659A, HIST688A, or INST788A. Prerequisite: AMST655/ANTH655/HIST610. Recommended: AMST856/ANTH856/HIST810, AMST857/ANTH857/HIST811. Restriction: By permission only. Students enrolled in the MSMC (Museum Scholarship and Material Culture) certificate program will be given priority for enrollment. This seminar not only considers the history of curation and curators within the institutional setting of museums, it offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years. The initial run of this course will focus on the 1856 project at the University of Maryland, which focuses on three main areas of Black Life at and around the University of Maryland - Slavery and the Building of the Campus; Civil Rights, Black Student Activism, and the University; and the Relationship of the University to its Black Neighbors.

0101	Henry Gregory	Seats (Total: 15)
	M 7:00pm - 9:40pm	ASY 4213A

AMST698 **Directed Readings in American Studies**

(Perm req)

Credits: 3 Grading Method: Regular

This course is designed to provide students with the opportunity to pursue independent, interdisciplinary research and reading in specific aspects of American culture under the supervision of a faculty member.

Contact department for information to register for this course.

AMST798 **Non-Thesis Research**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

AMST798B **Non-Thesis Research; U.S. LatinX Diasporas**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with SPAN798B. Credit only granted for SPAN798B or AMST798B. This seminar focuses on LatinX Diasporas in the United States in the 20th Century. We will study representative Latinx and critical literature in relation to decolonization/decoloniality, hispanicity, borders, violence, post/memory, among other topics. In recent decades, immigration from Latin America, the Caribbean, and Spain, and Latinx migrations across the United States have vastly diversified, translocalized, and complicated Latinx discourses, making the X the sign of the times. This course seeks to examine the field through interdisciplinary and intersectional critical lenses. Readings mostly in English; discussions and writing in Spanish or English.

0101	Ana Rodriguez W 5:00pm - 7:30pm	Seats (Total: 10) JMZ 2125

AMST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AMST857 **Museum Scholarship Practicum**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: ANTH857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0201	Diana Marsh Contact instructor or department for details.	Seats (Total: 6)
0301	Paul Jaeger Contact instructor or department for details.	Seats (Total: 4)

0401	Mary Sies	Seats (Total: 4)
	Contact instructor or department for details.	
IM01	Paul Jaeger	Seats (Total: 4)
	Contact instructor or department for details.	

AMST878A **American Studies Pedagogy Mentoring; Mentoring for First Year Teaching in American Studies**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 5)
	Contact instructor or department for details.	

AMST878B **American Studies Pedagogy Mentoring; Mentoring for Second Year Teaching in American Studies**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 6)
	Contact instructor or department for details.	

AMST878C **American Studies Pedagogy Mentoring; Mentoring for Third Year Teaching in American Studies**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

This course provides graduate teaching assistants with a structured approach to pedagogical content, techniques, and collaborative practices that they learn and then can use throughout their careers. It also commits a core faculty member to teaching pedagogy and makes it possible for the course to become a formal part of one's load.

Prerequisite: permission of department and must be a current AMST teaching assistant.

0101	La Marr Bruce	Seats (Total: 5)
	Contact instructor or department for details.	

AMST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

AMST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC Animal Science Fall 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

ANSC101 **Principles of Animal Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized.

0101	Sarah Balcom MWF 1:00pm - 1:50pm	Seats (Total: 156) ESJ 2204	

ANSC103 **Principles of Animal Science Laboratory**

Credits: 1 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in ANSC101. Restriction: Must be in one of the following programs (Environmental Sci & Pol-Environment & Agriculture; Agricultural and Veterinary Medicine; Agricultural Science and Technology) ; or must be in a major within the AGNR-Animal & Avian Sciences department; or permission of department required for students in other College of AGNR programs.

Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including livestock and companion animals. Labs will include live animals.

Students must pay a $50.00 laboratory materials fee.

0101	Megan McLean, Chirantana Mathkari M 3:00pm - 4:50pm	Seats (Total: 21) ANS 1144	Lab
0201	Megan McLean, Chirantana Mathkari Tu 2:00pm - 3:50pm	Seats (Total: 21) ANS 1144	Lab
0401	Megan McLean, Chirantana Mathkari Th 2:00pm - 3:50pm	Seats (Total: 21) ANS 1144	Lab

0501	Megan McLean, Chirantana Mathkari W 3:00pm - 4:50pm	Seats (Total: 21) ANS 1144	Lab
0701	Megan McLean, Chirantana Mathkari W 10:00am - 11:50am	Seats (Total: 21) ANS 1144	Lab

ANSC105 **Horse Care Practicum**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Permission of the instructor. Credit only granted for: ANSC108 or ANSC105. Formerly: ANSC108.

This practicum course provides the opportunity for students to be involved in the routine care of the horses housed at the Campus Farm including grooming, feeding, turnout, first aid, record-keeping, and cleaning. Practical skills are supplemented with self-paced online learning.

0101	Amy Burk Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 30) ONLINE	

ANSC115 **Careers in the Animal Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103.

Discussion of current employment opportunities in Animal Science, primarily by invited speakers. In addition, students will have the opportunity to prepare resumes and improve oral presentation skills while working with their peers.

0101	Victoria Pearlman M 1:00pm - 1:50pm	Seats (Total: 35) ANS 0412	

ANSC204 **Anatomy of Domestic Animals**

Credits: 2 Grading Method: Regular

Prerequisite: ANSC101, ANSC103, BSCI170 and BSCI171. Corequisite: ANSC205. Restriction: Must be in one of the following programs (Environmental Sci&Pol-Wildlife Resources & Cons; Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC211 or ANSC204 AND ANSC205. Formerly: ANSC211.

Covering the anatomy of major species of domestic animals. Utilizes a systemic approach to provide a general knowledge of both gross and microscopic mammalian structure. Comparative differences between the major domestic species are covered.

0101	Angela Black MW 2:00pm - 2:50pm	Seats (Total: 90) ANS 0408	

ANSC205 **Anatomy of Domestic Animals Laboratory**

Credits: 2 Grading Method: Regular

Prerequisite: ANSC101, ANSC103, BSCI170 and BSCI171. Corequisite: ANSC204. Restriction: Must be in one of the following programs (Environmental Sci&Pol-Wildlife Resources & Cons; Animal Sciences: Animal Care & Management; Animal Sciences: Equine Studies; Animal Sciences: Laboratory Animal Care; Animal Sciences: Sciences/Preprofessional; Animal Sciences: Animal Biotechnology; Agricultural and Veterinary Medicine). Credit only granted for: ANSC211 or ANSC204 and ANSC205. Formerly: ANSC211.

A regional approach is taken to study the gross anatomy of major domestic species in the laboratory portion of this course.

Students must pay a $50.00 laboratory materials fee.

0101	Angela Black Tu 9:00am - 12:00pm	Seats (Total: 22) ANS 0108	Lab
0102	Angela Black Tu 1:00pm - 4:00pm	Seats (Total: 22) ANS 0108	Lab
0103	Angela Black Th 9:00am - 12:00pm	Seats (Total: 22) ANS 0108	Lab
0104	Angela Black Th 1:00pm - 4:00pm	Seats (Total: 22) ANS 0108	Lab

ANSC210 **Veterinary Terminology**

Credits: 1 Grading Method: Regular, Audit

Prerequisite: ANSC204 and ANSC205. Credit only granted for: The course is offered on-line through a series of self-paced modules on ELMS..

Students will learn terminology related to the clinical practice of small and large animal medicine including medical record terminology and a systems-based consideration of common practices and pathologies.

0101	Sarah Balcom Class time/details on ELMs	Seats (Total: 80) ONLINE	

ANSC227 **Eating with Eyes Wide Open**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Students will investigate the tension that is created by trade-offs that, knowingly or not, are made by consumers relative to agricultural production methods and dietary choices. Course will inform students about their food supply so they can make informed decisions and practice intentional or informed eating.

0101	R Apter MW 9:00am - 9:50am M 1:00pm - 2:50pm	Seats (Total: 20) SYM 0200 ANS 1144	 Lab
0102	R Apter MW 9:00am - 9:50am Tu 9:00am - 10:50am	Seats (Total: 20) SYM 0200 ANS 1144	 Lab
0103	R Apter MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 20) SYM 0200 ANS 1144	 Lab

ANSC232 Horse Management

Credits: 3 Grading Method: Regular

Prerequisite: ANSC101 and ANSC103. Credit only granted for: ANSC232 or ANSC332. Formerly: ANSC332.

An introductory course on the care, management, and use of horses. Major topics include the industry, breeds, conformation, feeding, health, reproduction, facilities and business.

Students must pay a $50.00 lab materials fee.

0101	Amy Burk MW 10:00am - 10:50am F 9:00am - 10:50am	Seats (Total: 20) ANS 0408 ANS 1144	 Lab
0102	Amy Burk MW 10:00am - 10:50am F 2:00pm - 3:50pm	Seats (Total: 20) ANS 0408 ANS 1144	 Lab

ANSC242 Dairy Cattle Management

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103. Formerly: ANSC240 and ANSC241.

All aspects of dairy production, including nutrition, reproduction, mastitis control, milking management, farmstead facilities, financial management and forage production.

0101	J Rico	Seats (Total: 35)	
	MW 12:00pm - 12:50pm	ANS 0402	
	F 11:00am - 12:50pm	ANS 1144	Lab

ANSC252 **Introduction to the Diseases of Wildlife**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI105; or (BSCI170 and BSCI171); or permission of AGNR-Animal & Avian Sciences department; or students who have taken courses with comparable content may contact the department.

The principal diseases of North American wildlife will be briefly considered. For each disease, specific attention will be given to the following: signs evidenced by the affected animal or bird, causative agent, means of transmission and effects of the disease on the population of the species involved.

Offered fall only.

0101	Cindy Driscoll	Seats (Total: 80)	
	M 4:00pm - 5:50pm	ONLINE	
	M 6:00pm - 6:50pm	ONLINE	Discussion

ANSC255 **Introduction to Aquaculture**

Credits: 3 Grading Method: Regular General Education: DSSP

Prerequisite: ANSC101 and ANSC103; or must have completed an introductory biology course.

Introduces the art and science of rearing aquatic animals and the essential principles of aquaculture. Students receive hands-on training in the methods required for successful husbandry and management of aquatic animals in their water environment.

Students must pay a $50.00 lab materials fee.

0101	Daniel Theisen, Mohamed Salem	Seats (Total: 20)	
	TuTh 11:00am - 12:50pm	ANS 1144	

ANSC270 **Animal Enterprise Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103; or permission of instructor. Credit only granted for: ANSC270 or AREC306.

General principles of enterprise organization, management, and operation as applicable to food, livestock, and companion animals. Enterprise planning and establishment, management of financial, human, and animal resources, and other related topics will be investigated.

0101	R Apter	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ANS 0408

ANSC314 **Comparative Animal Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101 and ANSC103; and (CHEM231 or PLSC275).

The fundamental role and implications of dietary preference, gastrointestinal physiology and nutrients in animal nutrition. Biochemical roles of nutrients in metabolism, digestion, absorption and assimilation as it relates to various life processes.

Offered fall only.

0101	Nishanth Sunny	Seats (Total: 88)
	MWF 9:00am - 9:50am	ANS 0408

ANSC359 **Internship Experience in Animal and Avian Sciences**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Experiential learning is a key component in an animal science education. Through the internship program, you will have the opportunity to develop your expertise in a specific species and discipline within the animal science curriculum. You will arrange an on- or off-campus internship experience related to animal science. You will spend a specified number of hours at the internship site each week and attend biweekly classroom sessions where we will discuss how the study of animal science fits into your specific internship experience as well as understand how to achieve each of the course learning outcomes.

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, or ANSC262. Restriction: Must be in a major within the AGNR-Animal & Avian Sciences department; and permission of instructor.

0101	Monica VanKlompenberg	Seats (Total: 20)
	Tu 3:30pm - 5:30pm	ANS 0402

ANSC371 **Sustainable Agriculture and Environment in Nicaragua: Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

This course will examine the unique programs in Nicaragua, a country that is rebuilding its agricultural economy to address multiple goals including reducing poverty, improving food security, as well as decreasing impacts from climate change and decreasing greenhouse gas emissions. The historical, political and social context will be discussed and perspectives will be provided from representatives from diverse groups including farm workers, farm owners, women, and indigenous peoples. Students will see differences between the US and Nicaragua, and in turn, will identify structures that cause those differences.

0101	Richard Kohn	Seats (Total: 15)
	W 4:00pm - 5:15pm	ANS 0402

ANSC379 **Animal Science Undergraduate Teaching Assistant Seminar**

(Perm req)

Credits: 2 Grading Method: Regular

Seminar course for undergraduate teaching assistants within ANSC.

0101	Sarah Balcom	Seats (Total: 15)
	W 12:00pm - 12:50pm Contact instructor or department for details.	ANS 1408

ANSC388 **Honors Thesis Research**

Credits: 3-6 Grading Method: Regular

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

9102	Andrew Schiffmacher	Seats (Total: 5)
	Contact instructor or department for details.	

ANSC389 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

ANSC399 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

Contact department for information to register for this course.

ANSC410 **The Gut Microbiome and its Roles in Health and Disease**

Credits: 3 Grading Method: Regular

Prerequisite: BSCI223, ANSC212, ANSC327, EPIB301, BSCI222, BSCI421, or NFSC430; or students who have taken courses with comparable content may contact the department. Credit only granted for: ANSC489M or ANSC410. Formerly: ANSC489M.

A comprehensive perspective of the role of gut microbiome/microflora in nutrition, metabolism, disease prevention and health issues including farm animal health and food value, and human gastrointestinal health and immunity.

0101	Debabrata Biswas	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ANS 0402

ANSC417 **Regulatory Issues in Animal Care and Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC220, ANSC232, ANSC242, ANSC250, ANSC255, ANSC260, ANSC262, or ANSC282; or permission of instructor. Additional information: Field trips may be required for this course.

A study of regulatory issues affecting animal care and management in the livestock industry. Guest speakers and classroom discussions will focus on key topics including animal welfare, feed and drug regulations, animal identification, CAFO management, processing and marketing of animal products.

0101	Monica VanKlompenberg	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 0402

ANSC445 **Comparative Digestive Physiology**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ANSC212.

Comparative gastrointestinal physiology and the pathophysiology of diseases involved in animal-related research. A comparative approach will be presented for much of this material, using the human, canine, porcine, equine, bovine, and avian when information is available. The ultimate aim of the course is to provide a comprehensive knowledge of comparative gastrointestinal pathophysiology, and to give students an insight into the current field of human and veterinary gastroenterology. Students should feel more comfortable reading cutting edge literature by the end of the course, and should acquire a greater understanding of potential digestive disease areas for their future career such as graduate, medical, and veterinary students.

0101	Younggeon Jin	Seats (Total: 28)
	TuTh 9:30am - 10:45am	ANS 0412

ANSC446 **Physiology of Mammalian Reproduction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC212 or BSCI440.

Anatomy and physiology of reproductive processes in domesticated and wild mammals.

0101	Monica VanKlompenberg	Seats (Total: 80)
	TuTh 2:00pm - 3:15pm	ANS 0408

ANSC447 **Physiology of Mammalian Reproduction Laboratory**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in ANSC446.

Gross and micro-anatomy, artificial insemination, estrous cycle synchronization and invitro-fertilization procedures and analytical techniques useful in animal management and reproduction.

Students must pay a $50.00 laboratory materials fee.

0101	Megan McLean, Chirantana Mathkari F 1:00pm - 2:50pm	Seats (Total: 20) ANS 0108	Lab
0102	Megan McLean, Chirantana Mathkari F 11:00am - 12:50pm	Seats (Total: 20) ANS 0108	Lab

ANSC450 **Animal Breeding Plans**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC101; and 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140). Restriction: Junior standing or higher.

Design of animal breeding programs for the genetic improvement of livestock and companion animal species. Principles of population and quantitative genetics. Genetic evaluations of animals, selection strategies and crossbreeding systems. Incorporation of statistics and biotechnology into animal breeding plans.

0101	Monica VanKlompenberg MWF 3:00pm - 3:50pm	Seats (Total: 35) ANS 0408	

ANSC455 **Applied Animal Behavior**

Credits: 3 Grading Method: Regular

Prerequisite: ANSC101 and ANSC103; or BSCI106; or (BSCI160 and BSCI161).

Principles of animal behavior applied to production systems in animal agriculture.

Offered fall only.

0101	R Apter MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 55) ANS 0408 ANS 0408	 Lab

ANSC460 **Comparative Vertebrate Immunology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANSC212, BSCI201, or BSCI440. Credit only granted for: ANSC460 or ANSC489I. Formerly: ANSC489I.

Basic concepts in immunology, and comparing immunity in different vertebrates, including organization of immune systems, innate and adaptive immune responses. Special attention will be paid to how cell-mediated and humoral immune responses are induced in natural infections, and what are the effector mechanisms in both of these processes. Immune response in representative disease models such as infections with viruses and bacteria, cancer, and autoimmune disease will be discussed. Lectures concerning cutting-edge research will also be given.

0101	Zhengguo Xiao	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	ANS 0412

ANSC489 **Current Topics in Animal Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Examination of current developments in the animal sciences.

Contact department for information to register for this course.

ANSC624 **Recent Advances in Animal and Avian Sciences**

Credits: 1 Grading Method: Regular

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC698C or ANSC624. Formerly: ANSC698C.

Seminar course in advanced animal science research.

0101	Richard Kohn	Seats (Total: 25)
	Tu 3:30pm - 5:30pm	ANS 0408

ANSC625 **Developing Presentation Skills**

Credits: 1 Grading Method: Regular

Restriction: Must be an Animal Sciences graduate student. Credit only granted for: ANSC625 or ANSC698D. Formerly: ANSC698D.

Seminar designed to teach oral presentation skills for animal science students.

0101	Richard Kohn	Seats (Total: 12)	
	Tu 3:30pm - 5:30pm	ANS 0408	
	Th 3:30pm - 4:30pm	Location: TBA	Discussion

ANSC645 **Advanced Studies in Comparative Digestive Pathophysiology**

Credits: 3 Grading Method: Regular

Focus is placed on advanced studies of comparative gastrointestinal physiology and the pathophysiology of diseases involved in animal or human-related research. A comparative approach will be presented for much of this material, using the human, canine, porcine, equine, bovine, and avian when information is available. The ultimate aim of the course is to provide a advanced knowledge of comparative gastrointestinal pathophysiology, and to give students an insight into the current field of human and veterinary gastroenterology. Students should be comfortable understanding and evaluating cutting edge literature by the end of the course, and should acquire a greater understanding of potential digestive disease areas.

0101	Younggeon Jin	Seats (Total: 10)	
	TuTh 9:30am - 10:45am Contact instructor or department for details.	ANS 0412	

ANSC660 **Poultry Literature**

Credits: 1-4 Grading Method: Regular, Audit

Readings on individual topics are assigned. Written reports required. Methods of analysis and presentation of scientific material are discussed.

Contact department for information to register for this course.

ANSC688I **Special Topics; Comparative Vertebrate Immunology**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	Zhengguo Xiao	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm Th 3:00pm - 5:00pm	ANS 0412 ANS 0402	 Discussion

ANSC688M **Special Topics; The Gut Microbiome**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses, and other special subjects in the fields of animal sciences and veterinary medicine.

0101	Debabrata Biswas	Seats (Total: 7)
	TuTh 11:00am - 12:15pm	ANS 0402

ANSC699 **Special Problems in Animal Science**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Work assigned in proportion to amount of credit. Prerequisite: approval of staff. Problems will be assigned which relate specifically to the character of work the student is pursuing.

Contact department for information to register for this course.

ANSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ANSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ANTH Anthropology Fall 2022

ANTH210 **Introduction to Medical Anthropology and Global Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

An introduction to the central concepts in medical anthropology and the anthropology of global health. This course is a survey of anthropological notions of health, disease, and the body in cross-cultural and global contexts, including classic and contemporary texts. It will provide an examination of systems of knowledge and practice with regard to illness, healing, and global health inequities.

0101	Andrea Lopez TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) HJP 0226 KEY 0124	Discussion
0102	Andrea Lopez TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 KEY 0124	Discussion
0103	Andrea Lopez TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 LEF 1222	Discussion
0104	Andrea Lopez TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 LEF 1222	Discussion
0105	Andrea Lopez TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 PLS 1164	Discussion

0106	Andrea Lopez TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 PLS 1164		Discussion

ANTH222 **Introduction to Ecological and Evolutionary Anthropology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL, DVUP

Credit only granted for: ANTH220 or ANTH222.

An introduction to the evolution of human physiology and human behavior, the relationship between hominid and non-hominid primates, and the study of relationships between a population of humans and their biophysical environment.

0101	Miguel Vilar TuTh 9:30am - 10:45am F 8:00am - 10:00am	Seats (Total: 20) SHM 2102 ESJ 1324		Lab
0102	Miguel Vilar TuTh 9:30am - 10:45am F 11:00am - 1:00pm	Seats (Total: 20) SHM 2102 ESJ 1324		Lab
0103	Miguel Vilar TuTh 9:30am - 10:45am F 2:00pm - 4:00pm	Seats (Total: 20) SHM 2102 ESJ 1324		Lab
0104	Miguel Vilar TuTh 9:30am - 10:45am W 8:00am - 10:00am	Seats (Total: 20) SHM 2102 ESJ 1324		Lab
0105	Miguel Vilar TuTh 9:30am - 10:45am W 11:00am - 1:00pm	Seats (Total: 20) SHM 2102 ESJ 1324		Lab
0106	Miguel Vilar TuTh 9:30am - 10:45am W 2:00pm - 4:00pm	Seats (Total: 20) SHM 2102 ESJ 1324		Lab

ANTH240 **Introduction to Archaeology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.

0301	Mark Leone MWF 11:00am - 11:50am	Seats (Total: 60) HJP 2242
FC01	Kyla Cools MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 27) KNI 1103

ANTH242 **Fire, Farming and Climate Change: An Archaeology Take on the History of Human Impacts on our Planet**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

An examination of why climate changes, the methods for recording climate change, and case studies of the varied responses of past human societies to climate change in different geographic regions and time periods with varying socio-political and economic systems.

0101	George Hambrecht TuTh 9:30am - 10:45am	Seats (Total: 30) ESJ B0322

ANTH260 **Introduction to Sociocultural Anthropology and Linguistics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB, D | General Education: DSHS, DVUP

Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

0101	Aryn Schriner TuTh 3:30pm - 4:45pm	Seats (Total: 30) ASY 1213

ANTH263 **Sexuality and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Credit only granted for: ANTH298K or ANTH263. Formerly: ANTH298K.

An overview of sexuality from an anthropological perspective, looking at aspects of sexuality within our own culture and in cultures around the world. Course topics include the biology and culture of sex, gender, physical attraction, sexual orientation, marriage and mating taboos, fertility control, sexually transmitted diseases, and commercial aspects of sex.

FC01	Jeanne Hanna Tu 6:00pm - 7:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 2111 ONLINE

ANTH265 **Anthropology of Global Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVUP, SCIS

An overview of the growing field of global health including health care systems, medical practices, ideas about illness in cross-cultural contexts, issues of health development, global health inequity, and human rights issues. The course will focus on the history of global health, the critique of major international health agencies and their development paradigms, and the political economy of social inequalities and health.

FC01	Laura Gilchrest Tu 7:30pm - 8:45pm Class time/details on ELMs	Seats (Total: 35) TYD 0111 ONLINE	Discussion

Restricted to students in Freshmen Connection.

ANTH266 **Changing Climate, Changing Cultures**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC, SCIS

Explore past, present, and future interactions between humans and climate. Discussions, methods-oriented activities, and case study analyses provide students a foundation for appreciating the role of anthropology in understanding, responding to, and preparing for climate change.

FC01	Jana Kopelentova Rehak Th 7:30pm - 8:45pm Class time/details on ELMs	Seats (Total: 30) KEY 0126 ONLINE

Restricted to students in Freshmen Connection.

ANTH322 **Method and Theory in Ecological Anthropology**

Credits: 3 | Grading Method: Regular

Prerequisite: ANTH220 or ANTH222. Restriction: Must be in a major within the BSOS-Anthropology department. Credit only granted for: ANTH320, ANTH322, ANTH425, or ANTH625.

A theoretical consideration of ecological anthropology, focusing on issues related to cooperation, the management of common property, resilience, and sustainability. Explores the methods of sociocultural anthropology, including ethnology, evolutionary game theory and agent-based modeling; and natural-science approaches including behavioral and systems ecology.

0101	Madeline Brown TuTh 3:30pm - 4:45pm	Seats (Total: 30) TWS 0205

ANTH323 **Plagues, Pathogens and Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: ANTH429A or ANTH323. Formerly: ANTH429A.

The impact of diseases on populations from prehistoric times through the present will be examined, along with public perceptions of disease, scientific breakthroughs on treatment and prevention, and the ways that politics and public health policies can enhance or impede the advancement of disease treatment. The natural history of disease, population structure, and immunity will be discussed. The class will address emerging and re-emerging diseases and the ways that first responders, researchers, and policy makers may affect the outcome of an outbreak.

0101	Laura Gilchrest TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0102	Laura Gilchrest TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0103	Laura Gilchrest TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0104	Laura Gilchrest TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0105	Laura Gilchrest TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
0106	Laura Gilchrest TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 PLS 1168	Discussion
FC01	Tanya Icaza MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 33) COL 3109	

ANTH340 **Method and Theory in Archaeology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH240. Restriction: Must be in Anthropology program; or permission of BSOS-Anthropology department.

Theory, method, and practice which guides modern anthropological archaeology. Includes research design and execution (from survey through excavation and interpretation), the reconstruction of aspects of past cultures, and the understanding of cultural change and meaning.

0101	Stephen Brighton	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	HBK 1112

ANTH358A **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Archaeology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358B **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Bio-Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH358C **Undergraduate Teaching Assistant; Undergraduate Teaching Assistant in Cultural Anthropology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual instruction course: contact department or instructor to obtain section and index numbers.

Contact department for information to register for this course.

ANTH386 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Recommended: Completion of advanced courses in relevant subfield of anthropology recommended. Restriction: Permission of BSOS-Anthropology department; and junior standing or higher; and must be in Anthropology program.

Contact department for information to register for this course.

ANTH398A **Independent Study; Research Problems**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398C **Independent Study; The Mediterranean World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398E **Independent Study; Bodies and Burials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398G **Independent Study; Ethnicity, Race and Nationality in Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398H **Independent Study; Social Anthropology of Britain (Honors)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398I **Independent Study; Great Kingdoms of Ancient Near East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398J **Independent Study; Archaeology Practicum**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398K **Independent Study; Archaeology of Roman Identity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH398L **Independent Study; Social Anthropology of Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent interdisciplinary research and reading in specific areas of anthropology.

Contact department for information to register for this course.

ANTH415 **Advanced Studies in Global Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: ANTH210, ANTH310, or ANTH265 or a similar course focused on global health or medical anthropology course. Jointly offered with: ANTH615. Credit only granted for: ANTH415 or ANTH615.

Extends understandings of diverse health conditions facing world populations today and the science being made around them. Critically examines key issues in global aid and public health, with an emphasis on the theories, concepts, and methods of anthropology.

0101	Matthew Thomann TuTh 11:00am - 12:15pm	Seats (Total: 20) HBK 0115

ANTH433 Archaeology of Slavery: Classical, Caribbean and North American Contexts

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Jointly offered with: ANTH633. Credit only granted for: ANTH433 or ANTH633.

Has slavery always existed? Does it come and go? North American plantation archaeology has become one of the foundations for understanding African American culture from the 1960s. Slavery in Antiquity existed in Greece and Rome on large scales and was essential to making commercial agriculture profitable work. Slavery in the Caribbean showed Europeans how to make a profit from African bodies. Trafficking in human persons today is recorded by the U.S. State Department annually and is regarded as modern slavery. These varying contexts of slavery will be compared in an attempt to understand slavery scientifically.

0101	Mark Leone Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 20) ESJ B0320 ONLINE

ANTH440 Theory and Practice of Historical Archaeology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH240. Jointly offered with ANTH640. Credit only granted for: ANTH440 or ANTH640.

Historical archaeology enhances cultural heritage by providing voice for groups who were often unable to record their own histories, such as women, laborers, working class families, and enslaved people. The course provides insight into issues related to race, gender, and ethnicity as they relate to multicultural histories.

0101	Paul Shackel M 1:00pm - 3:45pm	Seats (Total: 13) VMH 1107

ANTH451 Environmental Archaeology

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: ANTH451, ANTH651, ANTH448F, ANTH668F. Formerly: ANTH448F.

An overview of modern environmental archaeology as a tool for the interdisciplinary investigation of past and present global change and to engage the long term past with current issues of sustainability and rapid environmental change.

0101	George Hambrecht TuTh 2:00pm - 3:15pm	Seats (Total: 20) SQH 1120

ANTH452 Anthropology and Climate Change

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH220, ANTH222, ANTH240, or ANTH260. Credit only granted for: ANTH452 or ANTH652.

Human activities now influence ongoing global climatic change, and the outcome remains uncertain for communities and cultures around the world. This interaction between humans and climate provides a rich area of study for anthropologists in an interdisciplinary context. Case studies of historic and contemporary evidence will be used to understand impacts of global climate change and assess opportunities and barriers to successful responses and adaptation.

0101	L Jen Shaffer TuTh 9:30am - 10:45am	Seats (Total: 20) VMH 1107

ANTH461 Language as Practice

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Jointly offered with: ANTH661. Credit only granted for: ANTH461, ANTH468I or ANTH661. Formerly: ANTH468I.

An introduction to linguistic variation and the construction of identity, relationship, and community membership through language use. The approach emphasizes language as community-based practice and examines the dynamic construction of social relations through linguistic interactions.

0101	Janet Chernela M 2:00pm - 4:45pm	Seats (Total: 30) HBK 0103

ANTH462 Amazon Through Film

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ANTH468D or ANTH462. Formerly: ANTH468D.

An interdisciplinary course that utilizes film to consider the Amazon basin, its history, peoples, and landscapes through cinematic representations. The course places the films in the context of film history and critical theory. The course takes into consideration the Brazilian, North American, Mexican, European and Argentine creators of the films and their visions of Amazonia, as well as the audiences and markets to which the films are intended.

0101	Janet Chernela	Seats (Total: 30)
	M 6:00pm - 8:45pm	HBK 0115

ANTH465 Ethnoecology: Nature, Knowledge and People

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: ANTH465 or ANTH688E.

Introduces theory and methodology from ethnoecology, the study of human relationships with and knowledge about the environment. Students will examine human relationships with both biotic (e.g. plants and animals) and abiotic (e.g. glaciers, weather) elements of ecological systems to better understand how knowledge frameworks and cultural practices shape human experiences of the natural world. The history of ethnoecology as a discipline will be covered, before moving to case studies where different ecological knowledge systems come into contact via conservation projects, bioprospecting, and other contemporary issues. Involves both discussion and project-based learning with GIS, cultural domain analysis, and ethnographic methods.

0101	Madeline Brown	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	SQH 1117

ANTH466 Anthropology of Work

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Jointly offered with: ANTH666. Credit only granted for: ANTH466 or ANTH666.

Examines the concept and meaning of work, the different types of work, and how the development of time discipline became essential for the creation of capitalist labor. Explores the contemporary social justice movement and its impact on gender and racialized inequities. Includes an exploration of deindustrialized regions in the Rust Belt.

0101	Paul Shackel	Seats (Total: 20)
	MW 10:00am - 11:15am	TYD 1108

ANTH467 Researching Environment and Culture

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Recommended: ANTH322, ANTH360, ENSP101, or ENSP102.

In this applied course, students use mixed methods to research a locally-based, environmental sustainability issue. Classroom time will be split between seminar discussions of theory, methods, and relevant case studies, and lab work focused on project development, data analysis, and report write up. Students are expected to spend additional time outside class on data collection, analysis, and writing

0101	L Jen Shaffer	Seats (Total: 20)
	Th 2:00pm - 4:45pm	JMZ 2122

ANTH476 **Senior Research**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Anthropology program. Credit only granted for: ANTH476 or ANTH486.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

Contact department for information to register for this course.

ANTH477 **Senior Thesis**

(Perm req)

Credits: 3-4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ANTH476. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program. Credit only granted for: ANTH477 or ANTH487.

Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

Contact department for information to register for this course.

ANTH485 **Honors Research Preparation**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program.

Honors Research Preparation is an independent study course during which the Honors candidate will work with their Honors Thesis Advisor to establish not only the structure of the thesis and timeline, but also the formation of Thesis Review Committee.

Contact department for information to register for this course.

ANTH486 **Honors Research**

(Perm req)

Credits: 3-4 Grading Method: Regular

Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH486 or ANTH476.

Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

Contact department for information to register for this course.

ANTH487 **Honors Thesis**

(Perm req)

Credits: 3-4 Grading Method: Regular

Prerequisite: ANTH486. Restriction: Permission of BSOS-Anthropology department; and must be in Anthropology program; and must be admitted to University Honors Program or Anthropology Honors Program. Credit only granted for: ANTH487 or ANTH477.

Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

Contact department for information to register for this course.

ANTH601 **Applied Anthropology**

Credits: 3 Grading Method: Regular

An overview of the history and current practices of applied anthropology. This includes relationships between applied anthropology and other major subfields of the profession; the interdisciplinary and public context of applied anthropology; and problems of significance, utility, and ethics associated with applied anthropology.

Offered fall only. For ANTH majors only.

0101	Matthew Thomann	Seats (Total: 20)
	M 4:00pm - 6:40pm	VMH 1107

ANTH606 **Qualitative Methods in Applied Anthropology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An introduction to the use of ethnography and qualitative methods in applied and policy contexts. Qualitative methods discussed include informal and systematic approaches. Students undertake fieldwork in local settings to practice the qualitative methods and to develop analysis and report writing skills.

0101	Christina Getrich	Seats (Total: 20)
	Th 11:00am - 1:45pm	VMH 1107

ANTH615 **Advanced Studies in Global Health**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ANTH415. Credit only granted for: ANTH415 or ANTH615.

Extends understandings of diverse health conditions facing world populations today and the science being made around them. Critically examines key issues in global aid and public health, with an emphasis on the theories, concepts, and methods of anthropology.

0101	Matthew Thomann TuTh 11:00am - 12:15pm	Seats (Total: 4) HBK 0115

ANTH620 **Environment and Society**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: MEES620. Credit only granted for: ANTH620 or MEES620. Additional information: Offered over the interactive video network.

Students will obtain foundational knowledge of core theories and methods that integrate cultural and socio-economic research into environmental science. Key topics include: coupled natural and human systems, cultural models of the environment, social networks, ecological economics, political ecology, environmental justice, and science communication.

0101	William Dennison, Kenneth Rose, Jana Kopelentova Rehak Th 2:00pm - 4:45pm	Seats (Total: 20) Location: TBA

ANTH633 **Archaeology of Slavery: Classical, Caribbean and North American Contexts**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ANTH433. Credit only granted for: ANTH433 or ANTH633.

Has slavery always existed? Does it come and go? North American plantation archaeology has become one of the foundations for understanding African American culture from the 1960s. Slavery in Antiquity existed in Greece and Rome on large scales and was essential to making commercial agriculture profitable work. Slavery in the Caribbean showed Europeans how to make a profit from African bodies. Trafficking in human persons today is recorded by the U.S. State Department annually and is regarded as modern slavery. These varying contexts of slavery will be compared in an attempt to understand slavery scientifically.

0101	Mark Leone Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 10) ESJ B0320 ONLINE

ANTH640 **Advanced Studies in Theory and Practice of Historical Archaeology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ANTH440. Credit only granted for: ANTH440 or ANTH6 40.

Historical archaeology enhances cultural heritage by providing voice for groups who were often unable to record their own histories, such as women, laborers, working class families, and enslaved people. The course provides insight into issues related to race, gender, and ethnicity as they relate to multicultural histories.

0101	Paul Shackel	Seats (Total: 7)
	M 1:00pm - 3:45pm	VMH 1107

ANTH651 Environmental Archaeology

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ANTH448F, ANTH451, ANTH688F, or ANTH651. Formerly: ANTH688F.

An overview of modern environmental archaeology as a tool for the interdisciplinary investigation of past and present global change and to engage the long term past with current issues of sustainability and rapid environmental change.

0101	George Hambrecht	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	SQH 1120

ANTH652 Anthropology and Climate Change

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ANTH452. Credit only granted for: ANTH452 or ANTH6 52.

Human activities now influence ongoing global climatic change, and the outcome remains uncertain for communities and cultures around the world. This interaction between humans and climate provides a rich area of study for anthropologists in an interdisciplinary context. Case studies of historic and contemporary evidence will be used to understand impacts of global climate change and assess opportunities and barriers to successful responses and adaptation.

0101	L Jen Shaffer	Seats (Total: 4)
	TuTh 9:30am - 10:45am	VMH 1107

ANTH655 Introduction to Museum Scholarship

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: AMST655, HIST610, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

For Fall 2008: Additionally cross-listed with INST728T. Credit only granted for ANTH655, AMST655, HIST610, or INST728T.

0101	Diana Marsh	Seats (Total: 20)
	Th 2:00pm - 4:40pm	TWS 0330

ANTH659A **Special Topics: Collaborative Curation; The 1856 Project**

Credits: 3 Grading Method: Regular, Audit

This seminar considers the history of curation and curators within the institutional setting of museums and offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years.

Cross-listed with AMST659A, HIST688A, and INST788A. Credit only granted for AMST659, ANTH659A, HIST688A, or INST788A. Prerequisite: AMST655/ANTH655/HIST610. Recommended: AMST856/ANTH856/HIST810, AMST857/ANTH857/HIST811. Restriction: By permission only. Students enrolled in the MSMC (Museum Scholarship and Material Culture) certificate program will be given priority for enrollment. This seminar not only considers the history of curation and curators within the institutional setting of museums, it offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years. The initial run of this course will focus on the 1856 project at the University of Maryland, which focuses on three main areas of Black Life at and around the University of Maryland - Slavery and the Building of the Campus; Civil Rights, Black Student Activism, and the University; and the Relationship of the University to its Black Neighbors.

0101	Henry Gregory	Seats (Total: 15)
	M 7:00pm - 9:40pm	ASY 4213A

ANTH666 **Anthropology of Work**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ANTH466. Credit only granted for: ANTH466 or ANTH666.

Examines the concept and meaning of work, the different types of work, and how the development of time discipline became essential for the creation of capitalist labor. Explores the contemporary social justice movement and its impact on gender and racialized inequities. Includes an exploration of deindustrialized regions in the Rust Belt.

0101	Paul Shackel	Seats (Total: 9)
	MW 10:00am - 11:15am	TYD 1108

ANTH688A **Current Developments in Anthropology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

Contact department for information to register for this course.

ANTH688E **Current Developments in Anthropology; Ethnoecology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Detailed investigation of a current problem or research technique, the topic to be chosen in accordance with faculty interests and student needs.

0101	Instructor: TBA	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	SQH 1117

ANTH689A **Special Problems in Anthropology**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

ANTH689S **Special Problems in Anthropology; Music, Language, and Signs**

Credits: 3 Grading Method: Regular, Sat-Fail

Cross listed with MUSC679S. Credit only granted for MUSC679S or ANTH689S. How do people communicate through and about music? Why is music often considered a "universal language"? How does music mean? This graduate seminar examines the intersections of music, language, and signs more broadly, with special attention to the human voice. Students will build a foundation in linguistic and semiotic anthropology and will explore how ideas about music and communication shape practices and relationships across various cultural groups.

0101	Siv Lie	Seats (Total: 12)
	Tu 3:30pm - 6:00pm	PAC 3110A

ANTH701 **Anthropology Internship Preparation**

Credits: 3 Grading Method: Regular, Audit

Preparation for internship includes practicum training in development, presentation and evaluation of position papers, proposals and work plans; literature search and use of secondary data sources in decision making the effect cultural analysis and resource management; ethics and professional development for work in non-academic settings.

Contact department for information to register for this course.

ANTH712 **Anthropology Internship Analysis**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ANTH789.

The preparation and presentation of internship results, and the development of skills in report writing and presentation. Includes the completion of a professional quality report or publishable paper based on the internship experience.

Contact department for information to register for this course.

ANTH741 Introduction to Cultural and Heritage Resource Management

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Master or Post-Baccalaureate Certificate of Professional Studies Programs; or by permission of the Anthropology department.

An introduction to the field of cultural and heritage resource management. Examines existing international, national, and local frameworks for the protection of cultural heritage. Provides an overview of employment opportunities and ethical responsibilities within the profession.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH743 Community Engagement and Consultation

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in the Cultural and Heritage Resource Management Program (CHRM); or by permission of the Anthropology department.

A grounding in cultural communication and sensitivity to community, cultural, and stakeholder needs within and beyond project specific confines. Using the broader context of practicing anthropology in the exploration of communication styles, learning styles, and cultural biases and taboos, students are exposed to underlying concepts concerning inter-cultural communication so that they may develop more collaborative approaches to research. The program also provides background in the development of public outreach programs in the context of cultural and heritage resource management.

PLA1	Marie Archambeault	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH747 Business of CRM

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Masters Program (MPCH) or certificate (Z121) ; or by permission of the Anthropology department.

An overview of the skills necessary for success in managing a CRM program. Students will learn how CRM organizations market and manage clients, prepare and submit budgets and proposals, and coordinate technical staff to successfully complete projects. Topics will address the range of issues that owners and managers are confronted with in their oversight of projects, including the management of employees, ethics and professional responsibilities, ensuring health and safety, and meeting the many contractual obligations of CRM projects.

PLA1	Lyle Torp	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH749 **Cultural and Heritage Resource Management Internship**

Credits: 1-6

Grading Method: Regular, Audit

An internship/practicum that would contribute to students' understanding of the overall process of CHRM. Students who are already working in CRM or a closely related field may use their employment as their practicum if the opportunity is available for them to learn beyond their current job duties.

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH751 **Project Management**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the Cultural and Heritage Resource Management Master's Program (MPCH) or certificate (Z121) ; or by permission of the Anthropology department.

This capstone class for the MPS in CHRM provides students with a grounding in the critical thinking processes necessary during each stage of the CRM process. It provides students with insights into the processes used as research questions are translated into data and then into an evaluative report. Students review examples of appropriate and inappropriate technical reports and then analyze the reports to understand the thinking processes necessary for project management to provide the client with the documentation necessary for completing the compliance process.

PLA1	Kelly Hockersmith	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH752 **Introduction to GIS for CRM**

Credits: 3 Grading Method: Regular, Audit

Builds foundational competence for using geographical information systems (GIS) in the field of cultural resources management (CRM), including a basic understanding of how to work in ArcGIS, and the types of data analysis and presentation that are possible within GIS applications.

PLA1	Michael Konzak	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH760 **Development of Social/Cultural Theory**

Credits: 3 Grading Method: Regular, Audit

A broad perspective of the history of social cultural theory in anthropology and the critical skills needed for understanding the subdiscipline is provided. An overview of the history of theorizing about society and culture will help outline the past, present, and future of anthropology and its relations with other scientific and humanistic disciplines.

For Anth majors only.

0101	Andrea Lopez	Seats (Total: 20)
	Tu 11:00am - 1:45pm	JMZ 3122

ANTH788 **Internship Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

This course augments ANTH 789 and is graded in conjunction with it.

Contact department for information to register for this course.

ANTH789 **Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular, Audit

Individual instruction course supervised by a department faculty member.

Contact department for information to register for this course.

ANTH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

PLA1	Matthew Palus	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Cultural & Heritage Resource Management program. All other graduate students must request permission. Contact oes@umd.edu.	

ANTH857 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, HIST811, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel	Seats (Total: 2)
	Contact instructor or department for details.	
0201	Diana Marsh	Seats (Total: 6)
	Contact instructor or department for details.	
0301	Paul Jaeger	Seats (Total: 4)
	Contact instructor or department for details.	
0401	Mary Sies	Seats (Total: 4)
	Contact instructor or department for details.	
IM01	Paul Jaeger	Seats (Total: 4)
	Contact instructor or department for details.	

ANTH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ANTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC Atmospheric and Oceanic Science Fall 2022

AOSC123 **Causes and Consequences of Global Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS, SCIS

Cross-listed with: GEOL123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Jeffrey Henrikson MW 4:00pm - 4:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 EGR 3102	Discussion
0102	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 EGR 3102	Discussion
0103	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 2204 MTH 0104	Discussion
0104	Jeffrey Henrikson MW 4:00pm - 4:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 CSI 2120	Discussion
0105	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 EGR 1110	Discussion
0106	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 2204 CHE 2145	Discussion

AOSC200 **Weather and Climate**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with AOSC201), DSNS, SCIS

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

0101	Timothy Canty TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 MTH 0403	Discussion
0102	Timothy Canty TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 MTH 0401	Discussion
0103	Timothy Canty TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 MTH 0403	Discussion
0201	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 EGR 2116	Discussion
0202	Jeffrey Henrikson TuTh 2:00pm - 3:15pm W 3:00pm - 3:50pm	Seats (Total: 30) ATL 2324 MTH 0401	Discussion
0203	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 30) ATL 2324 MTH 0403	Discussion
0204	Jeffrey Henrikson TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 30) ATL 2324 MTH 0401	Discussion

0301	Alexandra Jones TuTh 11:00am - 12:15pm Tu 4:00pm - 4:50pm	Seats (Total: 30) ATL 1113 ATL 2416	Discussion
0302	Alexandra Jones TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) ATL 1113 EGR 0135	Discussion

AOSC200C **Weather and Climate**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with AOSC201), DSNS, SCIS

Prerequisite: MATH107, MATH110, or MATH115. Recommended: Concurrent enrollment in AOSC201.

What are weather and climate? Most people think they know but if you ask people to explain the differences and similarities you're bound to get a range of answers. Weather affects not just our daily activities but other important aspects of society such as transportation, commerce, security and agriculture. Most people understand what weather is to some extent. Climate and climate change are concepts that evoke strong emotional responses from people but are less well understood. In this class, students examine fundamental issues such as the greenhouse effect, severe weather, and global weather patterns and how they relate to a changing climate. Instruction in the lectures will provide the basic knowledge needed to understand these issues. In the discussion sections, students will be divided into groups to address the implications of these topics through group projects.

0104	Timothy Canty TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 30) ATL 2324 EGR 2116	Discussion
	This section is restricted to students in Carillon Communities.		

AOSC201 **Weather and Climate Laboratory**

Credits: 1	Grading Method: Regular, Pass-Fail, Audit	CORE: PL

Corequisite: AOSC200. Formerly: METO201.

Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, use of the Internet, forecasting practice and climate modeling.

Students must pay a $60.00 laboratory materials fee.

0101	Hannah Zafar Tu 3:30pm - 5:30pm	Seats (Total: 26) ATL 3426	Lab

0102	Erin Evans W 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0103	Abby Sebol, Henry Hausmann F 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0104	Hannah Zafar W 4:00pm - 6:00pm	Seats (Total: 26) ATL 3426	Lab
0105	Erin Evans M 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	Lab
0106	Gillian Felton M 4:00pm - 6:00pm	Seats (Total: 26) ATL 3426	Lab
0107	Benjamin Sheppard M 10:00am - 12:00pm	Seats (Total: 26) ATL 3426	Lab
0108	Gillian Felton F 2:00pm - 4:00pm	Seats (Total: 26) ATL 3426	Lab

AOSC375 **Introduction to the Blue Ocean**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: MATH120 or higher. Recommended: MATH121, MATH141, PHYS161, or PHYS171. Cross-listed with: GEOL375. Credit only granted for: AOSC375, GEOL375 or METO375.

The global ocean is a major component of the Earth System that shapes life on earth, including our weather and climate. We explore the observation-based interdisciplinary science of oceanography, identifying its strong connections to related sciences like meteorology, and geography. We apply this developing understanding to environmental issues such as marine pollution, fish and fisheries, as well as to climate variability and to the changes to the marine environment that are resulting from steadily rising levels of atmospheric greenhouse gasses. Focusses include the biogeochemical and physical changes we can observe in the nearby Chesapeake Bay and the coastal waters of Eastern Shore, Maryland.

0101	James Carton MWF 11:00am - 11:50am	Seats (Total: 60) ATL 2324	

AOSC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail

Earn academic credit for the time spent supporting an AOSC course in the Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

AOSC400 Physical Meteorology of the Atmosphere

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141); or permission of CMNS-Atmospheric & Oceanic Science department. Formerly: METO400.

The application of basic classical physics, chemistry and mathematics t the study of the atmosphere. Composition of the atmosphere; energy sources and sinks (radiation in the atmosphere; radiative balance and radiative forcing of atmospheric processes); atmospheric thermodynamics; clouds and precipitation physics; atmospheric electricity and optics; mesoscale processes (e.g., orographic mesoscale phenomena and instabilities); air mass boundaries; severe weather, tropical cyclones; storms; global circulation.

0101	Rachel Pinker	Seats (Total: 32)
	TuTh 9:30am - 10:45am	ATL 2428

AOSC420 Physical Oceanography

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141 and PHYS141. Recommended: AOSC200. Also offered as: GEOL670, AOSC670. Credit only granted for: AOSC420, AOSC670, or GEOL670.

Ocean observations. Water masses, sources of deep, intermediate, and surface water. Mass, heat, and salt transport, and the meridional overturning circulation. Geochemical tracers and cycles, including carbon. Western boundary currents, mixed layers, and processes maintaining the thermocline. Coastal and estuarine processes. Surface waves and tides. the ocean's role in climate.

0101	Jacob Wenegrat	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	ATL 2416

AOSC431 Atmospheric Thermodynamics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (PHYS171, PHYS161, MATH141). Recommended: MATH246. Credit only granted for: AOSC431 or METO431. Formerly: METO431.

Classical thermodynamics applied to both the dry and the moist atmosphere. Composition; phase changes of water; stability concepts; Properties of aerosols and clouds, cloud nucleation and precipitation processes, atmospheric electricity, cloud and precipitation chemistry.

0101	Ning Zeng MWF 10:00am - 10:50am	Seats (Total: 25) ATL 2416
AM01	Ning Zeng MWF 10:00am - 10:50am	Seats (Total: 1) ATL 2416

AOSC470 **Synoptic Meteorology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Credit only granted for: AOSC470, AOSC600, or METO600.

Atmospheric properties and observations, meteorological analysis and charts, operational numerical forecasts. Application of quasigeostrophic theory, baroclinic instability, midlatitiude and mesoscale weather systems. Tropical meteorology. Weather forecasting using numerical and statistical models. Prediction of weather phenomena on the global, syoptic, meso, and local scales. Analysis of surface and upper air data; Norwegian cyclone model; introduction to weather forecasting.

0101	Jonathan Poterjoy TuTh 9:30am - 10:45am	Seats (Total: 20) ATL 2416

AOSC493 **Senior Research Project I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department. Restriction: Must be in Atmospheric and Oceanic Science program; or permission of instructor.

Technical writing and oral presentation skills. Planning, writing, and presenting a plan for research in the geosciences.

0101	Timothy Canty, Alexandra Jones MWF 2:00pm - 2:50pm	Seats (Total: 10) ATL 3408

AOSC494 **Atmospheric and Oceanic Science Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in AOSC431 and AOSC432. Restriction: Permission of the Atmospheric and Oceanic Science Department.

Exposure to a wide range of contemporary topics in atmospheric, oceanic, and climate sciences, to foster research interests and promote critical thinking through the weekly AOSC departmental seminar series.

0101	Louis Uccellini Th 3:30pm - 5:00pm	Seats (Total: 20) ATL 2400

AOSC498 **Senior Research Project II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The project will be based on the research or development plan created in AOSC493. It may be completed with the approval of a faculty advisor in conjunction with an internship. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

AOSC499 **Special Problems in Atmospheric Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study in the field of meteorology and the atmospheric and oceanic sciences.

Contact department for information to register for this course.

AOSC600 **Synoptic Meteorology I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: AOSC610. Credit only granted for: AOSC470 or AOSC600. Formerly: METO600.

Atmospheric properties and observations, meteorological analysis and charts, operational numerical forecasts. Application of quasigeostrophic theory, baroclinic instability, midlatitude and mesoscale weather systems. Tropical meteorology.

0101	Jonathan Poterjoy TuTh 9:30am - 10:45am	Seats (Total: 10) ATL 2416
AM01	Jonathan Poterjoy TuTh 9:30am - 10:45am	Seats (Total: 1) ATL 2416

AOSC610 **Dynamics of the Atmosphere and Ocean I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH462; or students who have taken courses with comparable content may contact the department. Formerly: METO610.

Equations of motion and their approximation, scale analysis for the atmosphere and the ocean. Conservation properties. Fluid motion in the atmosphere and oceans. Circulation and vorticity, geostrophic motion and the gradient wind balance. Turbulence and Ekman Layers.

0101	Da-Lin Zhang MWF 12:00pm - 12:50pm	Seats (Total: 30) ATL 2416
AM01	Da-Lin Zhang MWF 12:00pm - 12:50pm	Seats (Total: 1) ATL 2416

AOSC615 **Advanced Methods in Data Assimilation for the Earth Sciences**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An overview of fundamental methods of data assimilation. Theory, techniques, potentials, and strategies of these methods, as well as their possible drawbacks. Hands-on experimentation through applications.

0101	Kayo Ide TuTh 11:00am - 12:15pm	Seats (Total: 20) ATL 2352
AM01	Kayo Ide TuTh 11:00am - 12:15pm	Seats (Total: 1) ATL 2352

AOSC620 **Physics and Chemistry of the Atmosphere I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH461; or students who have taken courses with comparable content may contact the department. Formerly: METO620.

Air parcel thermodynamics and stability; constituent thermodynamics and chemical kinetics. Cloud and aerosol physics and precipitation processes.

0101	Russell Dickerson TuTh 12:30pm - 1:45pm	Seats (Total: 25) ATL 2416
AM01	Russell Dickerson TuTh 12:30pm - 1:45pm	Seats (Total: 1) ATL 2416

AOSC652 **Analysis Methods in Atmospheric and Oceanic Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PHYS141 and MATH241; or students who have taken courses with comparable content may contact the department. Recommended: AMSC460, CMSC660, AMSC660, or CMSC460.

A variety of the analysis methods used by atmospheric and oceanic scientists will be applied to observational data sets such as Vostok ice core record, temperature trends, and satellite measurements of ozone,sea ice, etc. in a hands-on, computer laboratory setting. Students will be exposed to Fortran and Python as well as modern file formats such as HDF and netCDF. No prior programming experience required.

0101	Jeffrey Henrikson TuTh 5:30pm - 7:30pm	Seats (Total: 24) ATL 3426
0201	Jeffrey Henrikson Class time/details on ELMs	Seats (Total: 30) ONLINE
AM01	Jeffrey Henrikson TuTh 5:30pm - 7:30pm	Seats (Total: 1) ATL 3426
AM02	Jeffrey Henrikson Class time/details on ELMs	Seats (Total: 1) ONLINE

AOSC670 **Physical Oceanography**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Geology department. Cross-listed with: GEOL670. Credit only granted for: GEOL670, AOSC670 or AOSC420.

Ocean observations. Water masses, sources of deep water. Mass, heat, and salt transport, geochemical tracers. Western boundary currents, maintenance of the thermocline. Coastal and estuarine processes. Surface waves and tides. Ocean climate.

0101	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 11) ATL 2416
AM01	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2416

AOSC680 **Introduction to Earth System Science**

Credits: 3 Grading Method: Regular, Audit

An introduction to the study of the earth as a system: atmosphere, oceans, land, cryosphere, solid earth, and humans. Cycling of materials and energy in the earth system: the energy cycle, the hydrologic cycle, the carbon cycle, the nitrogen cycle. Climate processes and variability: land-atmosphere, ocean-atmosphere, biosphere-climate, and human interactions, short- and long-term variability in climate.

0101	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 2316
AM01	Ross Salawitch TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2316

AOSC798 **Directed Graduate Research**

Credits: 1-3 Grading Method: Sat-Fail

Contact department for information to register for this course.

AOSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

AOSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARAB Arabic Fall 2022

ARAB101 **Elementary Arabic I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

0101	Ahmed Hanafy MW 2:00pm - 3:15pm	Seats (Total: 15) HJP 2114

ARAB104 **Elementary Modern Standard Arabic I-II**

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

An intensive course focusing on developing functional proficiency in the standard Arabic language, both written and formal spoken. Begins with script and phonology, and develops into a limited range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

Seats will be opened gradually by the registrar's office, to a total of 15 seats per section.

0101	Lutf Alkebsi MWF 10:00am - 11:50am	Seats (Total: 15) HJP 2118

0201	Lutf Alkebsi	Seats (Total: 15)
	MWF 12:00pm - 1:50pm	HJP 3142

ARAB204 **Intermediate Modern Standard Arabic I**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: ARAB105; and must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of Arabic.

Covers topics related to contemporary Arabic society, literature and culture in standard written and formal spoken Arabic. Acquisition of more complex grammatical structures, expanding vocabulary, and reading, to develop a better understanding of the formal aspects of using MSA.

0101	Ahmed Hanafy	Seats (Total: 15)
	MWF 10:00am - 11:50am	HJP 3142

ARAB206 **Egyptian Colloquial Arabic I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB205; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Arabic.

Develops communicative skills and cultural knowledge in Egyptian Arabic. Focuses on various social interactions, work and school situations, as well as specifics of pronunciation and grammar of the Egyptian dialect. Designed for students who have completed two years of the regular Arabic sequence classes (104-105 and 204-205) or equivalent.

Prerequisite: ARAB205.

0101	Valerie Anishchenkova	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	HJP 2118

ARAB207 **Egyptian Colloquial Arabic II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB206; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Arabic.

Further develops communicative skills and cultural knowledge in Egyptian Arabic, extending range of contexts and types of social interaction. Focuses on various aspects of Egyptian popular culture.

Contact department for information to register for this course.

ARAB304 **Advanced Modern Standard Arabic I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARAB205; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Arabic. Formerly: ARAB301.

Advanced grammar, reading, writing, speaking in Arabic; study of contemporary Arabic society, politics, and culture.

0101	Peter Glanville	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	HJP 2118	
	F 2:00pm - 2:50pm	HJP 2118	Lab

ARAB386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Pre-professional experience in research, analysis and writing in a work setting. Project proposal approved by faculty and internship sponsor. Junior standing.

Contact department for information to register for this course.

ARAB398L **Special Topics in Arabic Studies; Life Stories in Arabic Cultural Production**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

In-depth study of a particular aspect of Arabic culture, literature, and language. Specific topic to be announced when offered. Taught in Arabic.

This course focuses on autobiographical storytelling in literary, cinematic, visual, and virtual cultures in the Arabic-speaking world. Questions of nationalism, religious fundamentalism, Islamic feminism, and other social and political issues will be discussed from the perspective of an individual life story. Taught in English.

0101	Valerie Anishchenkova	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	HJP 2118

ARAB399 **Independent Study In Arabic**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Contact department for information to register for this course.

ARAB399B **Independent Study In Arabic; Moroccan Arabic: Foundation**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member on the Department of Arabic Studies. To be planned during semester preceding registration.

Restricted to students in the Arabic Flagship Program.

0101	Ahmed Hanafy	Seats (Total: 5)
	Contact instructor or department for details.	

ARAB499C **Special Topics in Arabic Studies; Food Cultures in the Global Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Food is both the stuff of everyday routine and rich symbolic meaning, from holiday meals to daily staples. Studying food offers new perspectives on modernization, colonialism, and nationalism, and illuminates popular experiences of major historical events. This course introduces students to the history and culture of the modern Middle Eastand North Africa using materials that include film, cookbooks, and food writing alongside scholarly texts. Taught in English.

0101	Anny Gaul	Seats (Total: 25)
	MW 2:00pm - 3:15pm	HJP 2118

ARAB499I **Special Topics in Arabic Studies; Key Moments in the History of the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB205 or permission of instructor. Taught in Arabic.

0101	Anny Gaul	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	HJP 2114

ARAB499Z **Special Topics in Arabic Studies; Moroccan Society and Culture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In-depth study of particular aspect of Arabic culture, literature and language. Specific topic to be announced when course is offered.

Prerequisite: ARAB305 and permission of department.

0101	Ahmed Hanafy	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	HJP 2114

ARAB628A **Special Topics in Arabic Studies; Arabic Audiovisual Discourses**

Credits: 3 Grading Method: Regular, Audit

In-depth study of a particular aspect of Arabic Studies. Topics to be announced when course if offered. Taught in Arabic.

Contact department for information to register for this course.

ARCH Architecture Fall 2022

ARCH170 **Design Thinking and Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU

Examines conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and design implementation.

0101	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1101	Discussion
0102	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1103	Discussion
0103	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ARC 1105	Discussion
0104	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 19) ARC 0204 ONLINE ASY 3217	Discussion
0105	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 19) ARC 0204 ONLINE ARC 1101	Discussion

0106	Robin Puttock W 9:00am - 9:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 19) ARC 0204 ONLINE ARC 1103	Discussion
FC01	Robin Puttock TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ARC 1101	

ARCH171 **Design Thinking and Making in Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Must be a major in ARCH-Architecture Program; and must be a freshman; or have permission of the School of Architecture, Planning and Preservation.

Examines iterative design processes and critical thinking skills through active learning and design thinking methodologies to solve problems and apply design as a lens of inquiry and exploration. Students will understand Design Thinking through interactive and experiential learning.

0101	Alex Donahue TuTh 11:00am - 12:15pm	Seats (Total: 50) ARC 1103	
0102	Alex Donahue TuTh 12:30pm - 1:45pm	Seats (Total: 50) ARC 1105	

ARCH201 **Elements and Principles of Architecture**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program.

Survey of fundamental elements and principals of architecture and architectural education. Frames study of architecture as a profession, discipline and critical practice.

0101	Brian Kelly M 11:00am - 11:50am	Seats (Total: 90) Location: TBA	

ARCH226 **History of World Architecture II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Post-1500 - History of Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and building innovation in architecture

0101	Juan Burke	Seats (Total: 120)
	TuTh 9:30am - 10:45am	Location: TBA

ARCH270 **Design in Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

Case studies and hands-on design projects ranging in scale from a product to a building to give students insight into the process by which architects work both individually and collaboratively to put disciplinary knowledge and expertise into practice to shape our built environment.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Renata Southard	Seats (Total: 90)
	TuF 11:00am - 12:15pm	Location: TBA

ARCH271 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Cross-listed with: RDEV250. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis	Seats (Total: 85)
	TuTh 3:30pm - 4:45pm	ARC 0204

ARCH300 **Design Media and Representation II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH200; or permission of ARCH-Architecture Program. Restriction: Must be in a major in ARCH-Architecture Program.

Study of architectural representation in physical and digital design media. Examine visual communications and speculative visual studies through applied drawing, modeling and making to explore expanded roles of representation in design and design thinking.

0101	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0102	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0103	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0104	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0105	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0106	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0107	Adan Ramos W 8:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA	Discussion
0108	Adan Ramos W 8:00am - 9:50am W 12:00pm - 1:50pm	Seats (Total: 20) Location: TBA Location: TBA	Discussion

ARCH386 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Restriction: Must have learning proposal approved by faculty sponsor and student's internship sponsor; and sophomore standing or higher; and permission of ARCH-Architecture Program.

Learning experience tied to internship of specified duration with targeted learning outcomes.

0101	Kristen Stack Class time/details on ELMs	Seats (Total: 10) ONLINE

ARCH400 **Architecture Design Studio I**

(Perm req)

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; and permission of ARCH-Architecture Program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture, visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses.

0101	Pedro Camargo De Alb Sanchez	Seats (Total: 15)
	MWF 2:00pm - 6:00pm	Location: TBA

ARCH401 **Architecture Design Studio II**

(Perm req)

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ARCH400. Restriction: Must be in Architecture (B.S.) program.

Continuation of ARCH 400 with introduction to building typology, urban and contextual issues, design of the vertical surface, and architectural interiors.

0101	Michael Abrams	Seats (Total: 80)
	MWF 2:00pm - 6:00pm Contact instructor or department for details.	Location: TBA

ARCH403 **Architecture Design Studio IV**

(Perm req)

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

General Education: FSOC

Prerequisite: Minimum grade of C- in ARCH402. Restriction: Must be in Architecture (B.S.) program.

Investigations into the relationship between the man-made and the natural world including introductory issues of assembly and material value. Design of the site and the building are combined into an integral process delimiting and probing the boundaries of each and exploring their reciprocal relationship. The architect's obligations to the natural and urban contexts are explored in many dimensions including historical, typological, environmental, and physical.

0101	Robin Puttock	Seats (Total: 80)
	MWF 2:00pm - 6:00pm Contact instructor or department for details.	Location: TBA

ARCH404 **Graduate Architecture Design Studio I**

(Perm req)

Credits: 6

Grading Method: Regular, Audit

Recommended: For 3 1/2 year graduate students only. Restriction: Must be in Architecture (Master's) program.

Introduction to architectural design with particular emphasis on conventions and principles of architecture , visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses. Offered fall only.

0101	Lindsey May, Marques King	Seats (Total: 12)
	MWF 2:00pm - 6:00pm Contact instructor or department for details.	Location: TBA

ARCH406 **Graduate Architecture Design Studio III**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in ARCH405. Restriction: Must be in Architecture (Master's) program.

Investigations into the relationship between the man-made and the natural world including introductory issues of assembly and material value. Design of the site and the building are combined into an integral process delimiting and probing the boundaries of each and exploring their reciprocal relationship. The architect's obligations to the natural and urban contexts are explored in many dimensions including historical, typological, environmental, and physical.

0101	James Tilghman	Seats (Total: 16)
	MWF 2:00pm - 6:00pm Contact instructor or department for details.	Location: TBA

ARCH408F **Special Topics Architecture Design Studio; Advanced Topical Design Studio Urban**

Credits: 6 Grading Method: Regular

Design Studio course to examine topical problems in architecture and urban design.

Contact department for information to register for this course.

ARCH419 **Independent Studies in Architectural Technology**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH426 **History of Architecture II**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Architecture Program. Credit only granted for: ARCH226 or ARCH426. Additional information: Graduate architecture history course requires additional recitation section and additional coursework tied to survey lectures.

Post-1500 - History of Architecture survey course - History of Architecture structured to develop critical thinking and visually literacy with regard to the worldwide legacy of design thinking and building innovation in architecture. Structured to nurture critical thinking and visually literacy with regard to the worldwide legacy of architecture. The work in the course will involve the evaluation of sources and arguments in reading architectural history. Architecture will be framed relative to ways of thinking, religious beliefs, cultural heritage, and cultural values.

Offered fall only.

0101	Juan Burke TuTh 9:30am - 10:45am	Seats (Total: 120) Location: TBA

ARCH427 **Theories of Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH426; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Survey of architectural theories - theories of architectural design, representation and urban design from antiquity to the present day.

0101	Christian Calleri TuTh 7:00pm - 8:15pm	Seats (Total: 15) ARC 1125

ARCH428C **Selected Topics in Architectural History; History of Structure and Construction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

0101	Joseph Williams TuTh 11:00am - 12:15pm	Seats (Total: 10) ARC 1123

ARCH428D **Selected Topics in Architectural History; Learning to Understand Washington**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Cross-listed with ARCH628D. Credit only granted for ARCH428D or ARCH628D. Washington may be familiar to many of us and yet there is much to learn about how the Washington we know came to be. The architecture of Washington not only expresses the symbolism of a world capital but the people who built the buildings and the people who made the private buildings their homes. No one book brings these themes together, so our challenge will be to weave together the architects, the builders, the residents of the city and its architecture. The planning of Washington will be a concomitant study, especially as it relates to neighborhood development.

0101	Cynthia Field	Seats (Total: 20)
	Th 2:00pm - 4:45pm	ARC 1123

ARCH428E **Selected Topics in Architectural History; Global Renaissance**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Restriction: permission of department. The course 'Global Renaissance' explores the architecture and urban cultures that flourished under the wide-reaching concept of the Renaissance, during the period ranging from 1450 to 1700. The Renaissance is a term that we usually associate to northern Italy, where it originated. However, the phenomenon of the Renaissance coincided with an age of global exploration, commerce, trade, and colonialism, allof which expanded the ideas of the Renaissance to every corner of Europe, the Mediterranean, the New World, and beyond. During the course we will workwith UMD s MITH (Maryland Institute for Technology in the Humanities), in order to create a digital humanities platform (a web page) in which we will showcase the work you will produce throughout the course. The main characteristicof the digital humanities is to employ technological tools to present humanities subjects under new light. In this case, the work will take the form of 3-D architectural models, use of GIS tools, image editing, or other digital-technological tools in order to produce a public pedagogical resource on the subject of the Global Renaissance.

0101	Juan Burke	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	ARC 1125

ARCH428N **Selected Topics in Architectural History; Medieval Architecture**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Prerequisite: ARCH225 and ARCH226. Jointly offered with ARCH628N. Credit only granted for: ARCH428N or ARCH628N. Medieval Europe and the Mediterranean produced a unique building culture in which design was flexible and deeply grounded in the act of construction. In this class, we will trace the diversity of Byzantine, Islamic, Romanesque and Gothic architecture through select case studies.Students will learn to unravel buildings in terms of phases of construction, relate each phase to a different social or political context, and describe the structural technologies that medieval masons rightly flaunted.

0101	Joseph Williams	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TYD 1108

ARCH428T **Selected Topics in Architectural History; American Building Typologies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architectural History

Examines key public, institutional, commercial, and residential building types since the founding of the nation to 1980. Such an approach to American architecture facilitates in-depth studies of like-purposed buildings, focusing on function and design through time. Categories could include state capitals, jails and prisons, places of worship, libraries, art academies and cultural institutions, railroad stations, banks, stores and so on. Students gain additional persepctive by examining the buildings' historical, cultural, and social contexts.

0101	Caroline Hickman	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 2122

ARCH429 **Independent Studies in Architectural History**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH430 **Measuring Sustainability in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ARCH430 or ARCH418M. Formerly: ARCH418M.

Studies metrics of sustainability as included in rating standards, including LEED. All students will take the LEED GA test.

0101	Ralph Bennett	Seats (Total: 75)
	TuTh 5:00pm - 6:15pm	ARC 0204

ARCH435 **History of Contemporary Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH225 and ARCH226; or ARCH425 and ARCH426; or permission of the ARCH-Architecture Program.

Architectural history from World War II to the present.

0101	Michael Abrams W 10:00am - 12:40pm	Seats (Total: 20) ARC 1103

ARCH443 **Visual Communication For Architects**

(Perm req)

Credits: 3 Grading Method: Regular

Corequisite: ARCH400. Restriction: Must be in Architecture (Master's) program; and must be in the 3.5 year M. ARCH program.

Investigation of the relationship between drawing from life and architectural drawing, the conventions of architectural drawing and the role of architectural drawing as a means to develop, communicate, and generate architectural ideas.

0101	Michael Abrams M 10:00am - 12:40pm	Seats (Total: 10) ARC 1103

ARCH445 **Visual Analysis of Architecture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Study of visual principles of architectural and urban precedents through graphic analysis. Exercises include on-site observation, documentation and analysis. Focuses on the development of an architect's sketchbook as a tool for life-long learning.

Contact department for information to register for this course.

ARCH448M **Selected Topics in Visual Studies in Architecture; Applied Model Making**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Visual Studies in Architecture

0101	David Atwater TuTh 12:30pm - 1:45pm	Seats (Total: 15) Location: TBA

ARCH448W **Selected Topics in Visual Studies in Architecture; Survey and Drawing: Mapping the Architecture of Florence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Visual Studies in Architecture

Contact department for information to register for this course.

ARCH449 **Independent Studies in Visual Studies in Architecture**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH458 **Selected Topics in Urban Design; Intro to Creative Placemaking: Practices & Principles**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Urban Design

This hybrid case-study based seminar is the introductory course for the Creative Place Making minor; it will introduce students to Creative Placemaking as a practice that leverages the power of the arts, culture, and design to support equitable, vibrant, and sustainable communities. Students will analyze Creative Placemaking initiatives around the United States that elevate our shared humanity and address critical challenges, such as conversations about racial injustice, inequitable development, climate change or celebrations of the diverse communities and cultures around us. Such projects enable us to consider and imagine ethical development practices, especially in underserved and historically marginalized neighborhoods. Students will explore a range of issues related to designing, planning, executing, and evaluating this work. Based on presentations from CP practitioners, they will create presentations to capture the ways that artists and designers in partnership with local culture bearers and knowledge keepers can play a vital role in shaping, keeping, and making a place.

0101	Ronit Eisenbach	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	ASY 3221

ARCH459 **Independent Studies in Urban Design**

(Perm req)

Credits: 1-4

Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH460 **Site Analysis and Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Master of Architecture program; or permission of the School of Architecture, Planning and Preservation.

Principles and methods of site analysis; the influence of natural and man-made site factors on site design and architectural form.

0101	Michael Ezban	Seats (Total: 40)
	F 9:30am - 12:00pm	ASY 1213
	Principles and methods of site analysis; the influence of natural and man-made site factors on site design and architectural form. This is a graduate level course that is required for all students in the Master's of Architecture program.	

ARCH462 **Methods & Materials of Building Construction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS121 or equivalent; and MATH120 or MATH140 or equivalent; or permission of the ARCH-Architecture Program. Restriction: Must be in a major in undergraduate or graduate ARCH program or Construction Project Management Minor. Credit only granted for: ARCH410 or ARCH462.

Building Construction methods and materials are examined through case studies to explore the means and techniques applied to the material execution of buildings and BIM. Focus on an understanding of the organization of the design and construction process and awareness of building and zoning codes, material systems and types.

0101	Jennifer Xu	Seats (Total: 105)
	TuTh 12:30pm - 1:45pm	ARC 0204

ARCH464 **Architectural Structures I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH462, ARCH463, and PHYS121; and MATH120 or MATH140, or equivalent; or permission of the ARCH-Architecture Program. Corequisite: ARCH401 or ARCH406. Restriction: Must be in either BS in Architecture or M.Architecture Program. Credit only granted for: ARCH411 or ARCH464.

This course covers the basic principles of architectural structures, including the influence of geometric, sectional, and material properties related to flexure and shear in beam and framed systems; vector mechanics with application to analysis of trusses, catenaries, and arches; diagrammatic analysis of beams for bending moment, shear, and deflection as well as the study of structural framing systems for vertical and lateral loads.

0101	Michael Binder	Seats (Total: 80)
	TuTh 11:00am - 12:15pm	ARC 0204

ARCH466 **Environmental Systems in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH462 and ARCH463. Corequisite: ARCH403 or ARCH406. Restriction: Must be in either BS in Architecture or M. Architecture Program. Credit only granted for: ARCH413 or ARCH466.

Environmental systems in architecture presents the theory, quantification, and architectural design implications for heating ventilating and air conditioning, water and waste, fire protection, electricity, illumination, acoustics, and vertical transportation.

0101	Jennifer Xu	Seats (Total: 90)	
	TuTh 9:30am - 10:45am	SQH 1120	

ARCH467 **Integrated Project Delivery**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; or must be in Construction Project Management Minor.

Integrated Project Delivery is examined from design to implementation through an exploration of building construction, architectural design and construction management perspectives.

0101	Kiley Wilfong Cullen	Seats (Total: 10)	
	Th 7:00pm - 9:40pm	ARC 1111	

ARCH470 **Computer Applications in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARCH400; or permission of ARCH-Architecture Program. Restriction: Must be in Architecture (B.S.) program.

Introduction to computer utilization, with emphasis on architectural applications.

0101	Stefano Passeri	Seats (Total: 18)	
	Tu 7:00pm - 9:30pm	ARC 1115	
	Th 7:00pm - 8:15pm	ARC 1115	Lab

ARCH472 **Building Information Modeling Communication and Collaboration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ARCH-Architecture Program; or must be in the Construction Project Management Minor. Credit only granted for: ARCH678I or ARCH472. Formerly: ARCH678I.

Building Information Modeling is explored as pertains to collaboration and communication in the design and construction of buildings and building systems. Practical and empirical learning using BIM software and case studies of real world projects and construction scenarios.

0101	Kiley Wilfong Cullen	Seats (Total: 18)	
	WF 9:30am - 10:45am	ARC 1115	

0102	Kiley Wilfong Cullen WF 11:00am - 12:15pm	Seats (Total: 18) ARC 1115

ARCH478G **Selected Topics in Architecture; Landscape Architecture: The Villa and the Garden**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Contact department for information to register for this course.

ARCH478U **Selected Topics in Architecture; The Black Experience & The American Built Enviornment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King W 7:00pm - 9:50pm	Seats (Total: 20) ARC 1105

ARCH478Z **Selected Topics in Architecture; Environmental Psychology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected Topics in Architecture

Focuses on the role of design in human behavior, exploring people-place relationships centered on human physical, physiological, psychological, sociological, and intellectual responses to elements of the built environment.

0101	Debarati Majumdar Narayan Th 2:00pm - 4:45pm	Seats (Total: 10) ARC 1101

ARCH479 **Independent Studies in Architecture**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH489 **Independent Studies in Architectural Preservation**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Prerequisite: permission of department.

Contact department for information to register for this course.

ARCH600 **Integrated Design Studio V**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Corequisite: ARCH611. Restriction: Permission of ARCH-Architecture Program.

Integrated and comprehensive building and site design. Course content bridges the gap between design and technology, between practice and education, in a studio setting. Explorations include the integration of conceptual and technical aspects of architectural form and assembly, highlighting the ways in which multiple layers of a building design are developed, coordinated and resolved.

0101	Michael Binder, Brittany L Williams, Julie Gabrielli, Amy Gardner, Vamshi Gooje MWF 2:00pm - 6:00pm Contact instructor or department for details.	Seats (Total: 12) Location: TBA

ARCH611 **Advanced Architecture Technology Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Corequisite: ARCH600. Restriction: Permission of ARCH-Architecture Program.

Technology in design of buildings. Application of technological issues in building design; integration of technology in architecture; technology as a form determinant in architecture; other conceptual and philosophical issues related to the application of technology in the design, construction, and use of buildings.

Offered fall only.

0101	Michael Binder, Vamshi Gooje TuTh 5:00pm - 6:15pm	Seats (Total: 30) ASY 3215

ARCH628C **Selected Topics in Architectural History; HISTORY OF STRUCTURE AND CONSTRUCTION**

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architectural History

0101	Joseph Williams TuTh 11:00am - 12:15pm	Seats (Total: 10) ARC 1123

ARCH628D **Selected Topics in Architectural History; Learning to Understand Washington**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Graduate Selected Topics in Architectural History

Cross-listed with ARCH628D. Credit only granted for ARCH428D or ARCH628D. Washington may be familiar to many of us and yet there is much to learn about how the Washington we know came to be. The architecture of Washington not only expresses the symbolism of a world capital but the people who built the buildings and the people who made the private buildings their homes. No one book brings these themes together, so our challenge will be to weave together the architects, the builders, the residents of the city and its architecture. The planning of Washington will be a concomitant study, especially as it relates to neighborhood development.

0101	Cynthia Field	Seats (Total: 20)
	Th 2:00pm - 4:45pm	ARC 1123

ARCH628E **Selected Topics in Architectural History; Global Renaissance**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Graduate Selected Topics in Architectural History

The course 'Global Renaissance' explores the architecture and urban cultures that flourished under the wide-reaching concept of the Renaissance, during the period ranging from 1450 to 1700. The Renaissance is a term that we usually associate to northern Italy, where it originated. However, the phenomenon of the Renaissance coincided with an age of global exploration, commerce, trade, and colonialism, allof which expanded the ideas of the Renaissance to every corner of Europe, the Mediterranean, the New World, and beyond. During the course we will workwith UMD s MITH (Maryland Institute for Technology in the Humanities), in order to create a digital humanities platform (a web page) in which we will showcase the work you will produce throughout the course. The main characteristicof the digital humanities is to employ technological tools to present humanities subjects under new light. In this case, the work will take the form of 3-D architectural models, use of GIS tools, image editing, or other digital-technological tools in order to produce a public pedagogical resource on the subject of the Global Renaissance.

0101	Juan Burke	Seats (Total: 4)
	TuTh 2:00pm - 3:15pm	ARC 1125

ARCH628N **Selected Topics in Architectural History; Medieval Architecture**

Credits: 3

Grading Method: Regular, Audit

Graduate Selected Topics in Architectural History

Jointly offered with ARCH428N. Credit only granted for: ARCH428N or ARCH628N. Medieval Europe and the Mediterranean produced a unique building culture in which design was flexible and deeply grounded in the act of construction. In this class, we will trace the diversity of Byzantine, Islamic, Romanesque and Gothic architecture through select case studies.Students will learn to unravel buildings in terms of phases of construction, relate each phase to a different social or political context, and describe the structural technologies that medieval masons rightly flaunted.

0101	Joseph Williams TuTh 3:30pm - 4:45pm	Seats (Total: 15) TYD 1108

ARCH628T **Selected Topics in Architectural History; American Building Typologies**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architectural History

Examines key public, institutional, commercial, and residential building types since the founding of the nation to 1980. Such an approach to American architecture facilitates in-depth studies of like-purposed buildings, focusing on function and design through time. Categories could include state capitals, jails and prisons, places of worship, libraries, art academies and cultural institutions, railroad stations, banks, stores and so on. Students gain additional perspective by examining the buildings' historical, cultural, and social contexts.

0101	Caroline Hickman TuTh 11:00am - 12:15pm	Seats (Total: 5) JMZ 2122

ARCH629 **Graduate Independent Studies in Architectural History**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

0801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 2)

ARCH678C **Advanced Selected Topics in Architecture; Architecture and Cinema: Place and Film**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Graduate Selected Topics in Architecture.

0101	Peter Noonan Th 7:00pm - 9:40pm	Seats (Total: 15) ARC 1123

ARCH678U **Advanced Selected Topics in Architecture; The Black Experience & The American Built Enviornment**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

This course will explore the historical and contemporary relationships between the American Black Population and the design, planning, land policy and use of American land.

0101	Marques King	Seats (Total: 2)
	W 7:00pm - 9:50pm	ARC 1105

ARCH678Z **Advanced Selected Topics in Architecture; Environmental Psychology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Graduate Selected Topics in Architecture.

Focuses on the role of design in human behavior, exploring people-place relationships centered on human physical, physiological, psychological, sociological, and intellectual responses to elements of the built environment.

0101	Debarati Majumdar Narayan	Seats (Total: 10)
	Th 2:00pm - 4:45pm	ARC 1101

ARCH679 **Advanced Independent Studies in Architecture; Independent Study in Architecture**

Credits: 1-4 Grading Method: Regular, Audit

Proposed work must have a faculty sponsor and receive approval of the Architecture Program Curriculum Committee.

Contact department for information to register for this course.

ARCH700 **Urban Design Studio VII**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Architecture Program.

Studio problems and theories concentrating on urbanism and urban design techniques. Issues and sites range from high density urban in-fill to suburban and greenfield development in American and other contexts. Studio theories explore such topics as Contextualism, Neo-Traditional design, Transit-Oriented Development, density, sustainable development building typology, and street design.

0101	Georgeanne Matthews, Matthew Bell Tu 1:00pm - 7:00pm F 2:00pm - 8:00pm Contact instructor or department for details.	Seats (Total: 19) Location: TBA Location: TBA

ARCH770 **Professional Practice of Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARCH-Architecture Program.

Project management, organizational, legal, economic and ethical aspects of architecture.

0101	Andrew Pressman M 11:00am - 1:50pm	Seats (Total: 30) ONLINE

ARCH797 **Thesis Proseminar**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ARCH601.

Directed research and preparation of thesis program.

0101	Brian Kelly, James Tilghman M 8:30am - 11:00am	Seats (Total: 20) ARC 1111

ARCH798 **Thesis in Architecture**

(Perm req)

Credits: 3 Grading Method: Regular

Complements the research of ARCH 799, with presentation of the design research to student's thesis committee.

Contact department for information to register for this course.

ARCH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Development of master's thesis.

Restricted to ARCH majors only.

Contact department for information to register for this course.

AREC Agricultural and Resource Economics Fall 2022

AREC200 **The Chesapeake Bay Ecosystem: Intersection of Science, Economics, and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS, DSSP, SCIS

The Chesapeake Bay is one of the most studied and monitored ecosystems in the world. To develop effective policies to restore this system to a healthier status requires integrating what we know about the biological and physical properties of the system with our understanding of the human dimension. Issues such as achieving nutrient reduction goals, restoring healthy blue crab and oyster fisheries in the bay will be used to demonstrate how economics interacts with science to guide policies that can be effective in achieving Bay restoration goals.

0101	Becky Epanchin-Niell MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 35) ESJ 2204 PLS 1111	Discussion
0102	Becky Epanchin-Niell MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 35) ESJ 2204 PLS 1117	Discussion
0103	Becky Epanchin-Niell MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 35) ESJ 2204 PLS 1111	Discussion
0104	Becky Epanchin-Niell MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 35) ESJ 2204 HBK 0115	Discussion

AREC250 **Elements of Agricultural and Resource Economics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: ECON200, AREC240 or AREC250.

An introduction to economic principles of production, marketing, agricultural prices and incomes, farm labor, credit, agricultural policies, and government programs.

0101	Maria Soppelsa TuTh 11:00am - 12:15pm	Seats (Total: 80) SYM 0200

AREC326 **Intermediate Applied Microeconomics**

Credits: 3 | Grading Method: Regular

Prerequisite: ECON200, AREC250, or AREC240; and ECON201. And MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326. Formerly: AREC489M.

Deepens and broadens your ability to apply rigorous economic analysis skills to a broad range of problems.

0101	Neslihan Uler	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	SYM 0215

AREC365 **World Hunger, Population, and Food Supplies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

0101	Kenneth Leonard	Seats (Total: 300)
	MWF 2:00pm - 2:50pm	ESJ 0202

AREC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Agricultural & Resource Economics department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

AREC388 **Honors Thesis Research**

(Perm req)

Credits: 3-6 Grading Method: Regular

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

Contact department for information to register for this course.

AREC399 **Special Problems**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

Contact department for information to register for this course.

AREC422 **Econometric Analysis in Agricultural and Environmental Economics**

Credits: 3 Grading Method: Regular

Prerequisite: 1 course from (AREC326 or ECON326); and 1 course from (ECON230, ECON321, or BMGT230). Credit only granted for: ECON422, ECON424, or AREC422.

This course offers a hands-on introduction to econometrics. Students will explore the linear regression model from the ground up by analyzing real-world datasets and learning how to distinguish causation from correlation. They will gain practical experience using econometrics to address important questions in agricultural economics and environmental economics.

0101	Louis Preonas	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	SYM 0215

AREC427 **Commodity Pricing and Markets**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Economic theory as applied to the marketing of agricultural commodities. How commodity prices vary with current demand and production, and how prices are linked over time, across space, and across grades. The role played by contractual arrangements, cooperative marketing, vertical integration, and governmental policies in commodity marketing strategies.

0101	James MacDonald	Seats (Total: 35)
	MWF 1:00pm - 1:50pm	SYM 0215

AREC445 **Agricultural Development, Population Growth and the Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

Prerequisite: ECON326 or AREC326; or students who have taken courses with comparable content may contact the department.

Development theories, the role of agriculture in economic development, the agricultural policy environment, policies impacting on rural income and equity, environmental impacts of agricultural development.

0101	Cory Smith	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	ESJ 2309

AREC453 **Natural Resources and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326, ECON306, or ECON326; and (BMGT230 or ECON230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts; Environmental Science & Policy-Env Economics). Cross-listed with: ECON453. Credit only granted for: AREC453 or ECON453.

Rational use and reuse of natural resources. Theory, methodology, and policies concerned with the allocation of natural resources among alternative uses. Optimum state of conservation, market failure, safe minimum standard, and cost-benefit analysis.

0101	Erik Lichtenberg	Seats (Total: 36)
	TuTh 2:00pm - 3:15pm	ESJ B0320

AREC455 **Economics of Land Use**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: ECON485. Credit only granted for: AREC455 or ECON485.

Fundamentals of location theory. Microeconomics of land use decisions, including determination of rent and hedonic pricing models. Impacts of government decisions on land use, including regulation (e.g., zoning), incentives (transferable development rights), provision of public services, and infrastructure investments. Impacts of land use on environmental quality, including issues relating to sprawl, agricultural land preservation, and other topics of special interest.

0101	David Newburn	Seats (Total: 80)
	TuTh 3:30pm - 4:45pm	MMH 1400

AREC481 **Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: ECON481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Maureen Cropper	Seats (Total: 62)
	MW 3:30pm - 4:45pm	TYD 0117

AREC620 **Optimization in Agricultural and Resource Economics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed Multivariate calculus and matrix or linear algebra.

Mathematical theory of static and dynamic optimization as applied to the economics of agriculture, natural resources and the environment. Topics include necessary and sufficient conditions for constrained optimization, convexity and concavity, duality and the envelope theorem, comparative statics, fixed point theorems, optimal control theory and dynamic programming.

0101	Lars Olson	Seats (Total: 25)	
	W 3:00pm - 5:45pm	SYM 0209	
	M 3:30pm - 4:45pm	SYM 0115	Discussion

AREC623 **Applied Econometrics I**

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Introductory statistics or econometrics, linear algebra, and differential/calculus; or permission of instructor. Additional information: Intended for first-year Ph.D. students from AREC, BUFN, ECON, EDMS, EDUC, PLCY and URSP departments with a background in introductory statistics or econometrics.

A modern introduction to empirical strategies in applied microeconomic research in public policy, development economics, labor economics, education, marketing and corporate finance. Emphasis on causal reasoning and design-driven identification in the social sciences. Concepts and applications will focus on addressing economically meaningful causal questions. Basic theoretical and mathematical aspects of probability and statistics will be developed to assess the significance of the relationship among economic variables. Topics include: the approximation of the conditional expectation function through a linear predictor (Ordinary Least Squares), the effects of omitted variables and the usefulness of variables that resemble the outcome of a randomized experiment (Instrumental Variables), as well as extensions to high-dimensional big-data counterparts. Fundamental concepts in sampling theory, statistical inference (with small and large samples) and hypothesis testing will be studied and applied to real data using Stata, a general-purpose statistical software.

0101	Erich Battistin	Seats (Total: 25)	
	TuTh 11:00am - 1:30pm	SYM 0209	
	F 3:00pm - 5:00pm	SYM 0209	Discussion

AREC699 **Special Problems in Agricultural and Resource Economics**

(Perm req)

Credits: 1-2 Grading Method: Regular, Audit

Intensive study and analysis of specific problems in the field of agricultural and resource economics, providing in-depth information in areas of special interest to the student.

Contact department for information to register for this course.

AREC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC832 **Agricultural Policy Analysis**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: AREC632 or AREC832.

The economics of agricultural policies. The impact of agricultural policies on both historic and modern growth, including discussion of optimal farm and ownership structure. Contemporary policy issues in both developed and developing countries. Additional topics in trade, environment, and commodity markets.

0101	Cory Smith	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	SYM 0209

AREC845 Environment and Development Economics

Credits: 3 | Grading Method: Regular, Audit

Considers neoclassical and endogenous growth models; international trade theory; the role of property right institutions and factor markets; the environmental impact of trade liberalization in developing countries and the environmental effects of increasing international capital mobility; empirical studies relating the environment to growth and globalization; and policy analyses.

0101	Louis Preonas	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SYM 0209

AREC847 Networks, Social Learning and Technology Adoption

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: AREC624, AREC623, and ECON603; and students who have taken courses with comparable content may contact the department.

This class will focus on networks, learning from others, and peer effects and the role ofeach in human capital accumulation, technology adoption and behavior. The material isfocused on applications of education, health agriculture and entrepreneurship in developingcountries, but will draw heavily from literatures on these effects in developed countries aswell. The class will cover the theory of networks and learning but its primary focus will beon the empirical difficulty of identifying these effects and establishing causality.

0101	Kenneth Leonard	Seats (Total: 12)
	MW 8:35am - 9:50am	SYM 0215

AREC891 Introduction to Prospectus Development

Credits: 1 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Completion of the first year of graduate study in AREC. Credit only granted for: AREC 869K or AREC 891. Formerly: AREC869K.

Critical evaluation of research, prospectus topic exploration including literature review, data identification, model development, and related presentations. Required of all second-year Ph.D. students.

0101	Erik Lichtenberg	Seats (Total: 10)
	TuTh 9:30am - 10:45am	SYM 2200B

AREC892 **Dissertation Prospectus Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Completion of two years of the AREC Ph.D. program. Credit only granted for: AREC 869P or AREC 892. Formerly: AREC869P.

Presentations of proposed dissertation research including literature review, model development, data identification, and written prospectus development. Required of all third-year Ph.D. students.

0101	Erik Lichtenberg	Seats (Total: 35)
	TuTh 9:30am - 10:45am	SYM 2200B

AREC898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

AREC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARHU Arts and Humanities Fall 2022

ARHU158B **Explorations in Arts and Humanities; Visual Cultures of Resistance and Reform**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Why does it matter what social change looks like? Students in this class will examine the visual cultures of social movements from abolition to suffrage, from the AIDS Coalition to Unleash Power (ACT-UP) to Black Lives Matter. What role did prints, photographs, posters, performances, and public art play in the advancement of movement goals? How can visual forms resist dominant narratives and produce new visions for the future? Can images simultaneously agitate for change and uphold the status quo?

0101	Tess Korobkin	Seats (Total: 21)
	MW 2:00pm - 3:15pm	ASY 3211

ARHU158C **Explorations in Arts and Humanities; Critical Conversations in Music**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. This course will use the common language of music to encourage students to approach scholarly research and writing in new ways. As a class, we will learn about the various ways artists, from Joan Baez to Kendrick Lamar, align with and respond to artistic and political movements to foster civic engagement and fight for change. This course will offer pathways for students to explore a variety of scholarly topics in the arts and humanities.

0101	Tom Hatcher	Seats (Total: 21)
	TuTh 3:30pm - 4:45pm	TWS 1321

ARHU158T **Explorations in Arts and Humanities; Using Science Fiction to Interrogate Diversity, Identity and Power**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. How do we engage with, embrace, or push back against various science fiction visions of the future? And what does that tell us about ourselves and our collective futures? Students will examine how science fiction texts-- including novels, short stories, movies, and television-- and science fiction scholarship-- intersect with writers and readers (including women, LGBTQ people, people of color, people with disabilities, and indigenous populations) and with current political movements, trends, and "identity politics."

0101	Rebecca Holden	Seats (Total: 21)
	TuTh 9:30am - 10:45am	TWS 1313

ARHU158W **Explorations in Arts and Humanities; Language and Antiracism**

Credits: 3 | Grading Method: Regular | General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. This sociolinguistics seminar is addressed to incoming ARHU majors, particularly those seeking a degree that will allow them to teach any language (including both L1 and L2) at any educational level. It is anchored in a critical interdisciplinary approach -- sociolinguistics, applied linguistics, Hispanic applied linguistics, linguistic anthropology, sociology, social psychology, race studies, Latinx studies, language acquisition, education, Hip-Hop studies -- that emphasizes the social, political and ideological dimensions of language.Its objective is to raise linguistic awareness through the implementation of antiracist language teaching methods in the language classroom.

0101	Jose Magro	Seats (Total: 21)
	MW 9:30am - 10:45am	TWS 1321

ARHU158Z **Explorations in Arts and Humanities; The Creative Process in Dance**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

A first-year innovation and research experience. It introduces multiple disciplinary perspectives within a given theme to understand human beings, cultures and societies. Students will learn about key questions, concepts, methods, and practices within ARHU and will engage in original humanistic research while working with campus and college tools and resources.

Restricted to first semester first year students in the College of Arts and Humanities. Give yourself permission to dive into the unknown in this movement-based class; to move freely, to think creatively, to search for your own voice, and to work by yourself as well as collaboratively with others. Discover and unleash your deeper self through the invigorating and restorative power of dance. Focusing on modern, contemporary, experimental dance and physical theater; this class asks you to engage with the visual and kinetic nature of the art form, to study different approaches to inspiration, experimentation, movement vocabulary, research, content building, and structure. No prior dance experience required.

0101	Patrik Widrig	Seats (Total: 21)
	MW 3:30pm - 4:45pm	PAC 1611

ARHU230 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Restriction: Permission of ARHU-English Department. Cross-listed with: ENGL254, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Robert Lucci	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	SQH 2113

ARHU240 **Cultural Institutions of the United States**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to cultural institutions in the United States, while providing student exposure to the professional environment artist find themselves in. In order for artist and arts administrators to succeed after their educational experience it is critical to understand the history of their respective field, and which events and questions have shaped, and are shaping, their industry. This course is very much an interdisciplinary initiative. Over the past century the arts have become ever-more integrated with one another resulting in a requirement of not only understanding one discipline, but how other disciplines affect a particular practice.

Cross-listed with TDPS258C. Credit granted for ARHU240 or TDPS258C.

0101	Amber Daniels	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ONLINE

ARHU269M **Special Topics in Study Abroad II; Sicily Against the Mafia**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU269P **Special Topics in Study Abroad II; Mystery Paintings**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU269V **Special Topics in Study Abroad II; Vienna and Budapest Field Study**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARHU275 **Scriptwriting for Theater, Film, and Television**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU, DSSP

Cross-listed with: ENGL275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

0101	Radford Skudrna TuTh 3:30pm - 4:45pm	Seats (Total: 15) KEY 0125
0102	Radford Skudrna TuTh 3:30pm - 4:45pm *This section is restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0125
0201	Jesse Brooks MWF 10:00am - 10:50am	Seats (Total: 20) KEY 0123

ARHU286 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Minimum cumulative GPA of 2.5; and must be in a major or minor in ARHU - College of Arts and Humanities; and must have earned a minimum of 12 credits; and must not have earned more than 60 credits.

Designed for students who have completed fewer than 60 credits, students who are in their first semester at the University of Maryland, and/or students who wish to complete legislative internships, research-based internships, some start-up internships and some remote internships. All students must be enrolled in an ARHU major or minor and the internship must be in one of the academic fields covered within the College of Arts and Humanities. In addition to completing their required hours on site, students with fewer than 60 credits and students who are in their first semester at the University of Maryland will be required to attend three bi-weekly seminars at the beginning of the semester to help develop their para-professional goals and understandings.

0101	Jeffrey Kodis, Paula Nadler Contact instructor or department for details.	Seats (Total: 5)

ARHU298L **"Are you - Nobody - too?" Why we create and share stories, poems, comics and zines**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL General Education: DSHU

Our ability to create and maintain meaningful social connections tells us that we are not alone; it reminds us that we are connected to something larger, a community, a group of people willing to celebrate our triumphs and help us cope during difficult times. Emphasizing the principles of participation, connection, and collaboration, this course explores how various traditionally marginalized people form their own cultural communities and develop a sense of reciprocal belonging through the creation (and independent distribution) of stories, poems, spoken word poetry, comics and zines.In spite of intersectional obstacles such as the lack of political power, access to resources and economic opportunities, these communities may find it possible to redefine their place in society by demonstrating originality, resilience, and talent.

FC01	Oludolapo Demuren Th 3:00pm - 4:15pm Class time/details on ELMs	Seats (Total: 25) LEF 1220 ONLINE

ARHU309 **Writers' House Colloquium: Creative Writing in Community**

(Perm req)

Credits: 1 Grading Method: Regular

Colloquium designed to improve students' skills in literary and communication arts through lectures, workshop and discussions on the history and craft of writing across cultures. Topics include poetry and fiction in translation, and exploration of modes of critique, elements of craft of fiction and poetry, writing for different media, genre writing, writing for performance, screen or scriptwriting and creative non-fiction.

For Writers House students only.

0101	Jacqueline Mueck W 4:30pm - 5:45pm *First-year fiction workshop.*	Seats (Total: 15) QAN 1132
0201	Naliyah Kaya W 6:00pm - 8:00pm *First-year poetry workshop. Class will meet every other week. Students are also expected to attend Writers Here and Now Events. The first class period will be conducted online, at which point the schedule for the rest of the semester will be distributed.*	Seats (Total: 15) KEY 0125
0401	Jacqueline Mueck W 11:00am - 12:15pm	Seats (Total: 2) QAN 1132

ARHU319A **Writers' House Second Year Colloquium: Form and Theory of Creative Writing; Prose**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSHU, DSSP

Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

For Writers' House students only. For further details please contact jmueck@umd.edu. The first class period will be conducted online, at which point the schedule for the rest of the semester will be distributed.

0101	Oludolapo Demuren MW 3:30pm - 4:45pm Contact instructor or department for details.	Seats (Total: 15) ASY 3211

ARHU319B **Writers' House Second Year Colloquium: Form and Theory of Creative Writing; Poetry**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSHU, DSSP

Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

For Writers' House students only. For further details please contact jmueck@umd.edu.

0101	Laura Lauth Th 5:30pm - 8:00pm Contact instructor or department for details.	Seats (Total: 15) QAN 1132

ARHU338 **Undergraduate Teaching Assistantship in a Living Learning Program**

(Perm req)

Credits: 3 Grading Method: Regular

Offers exceptional students the opportunity to work closely with a faculty member and gain valuable experience. ARHU Living learning program UTAs also serve as peer mentors and program leaders. They assist with course planning, research, and student advising (as appropriate). We are also allowing for variable credit (1-3 cr hrs).

0101	Jacqueline Mueck Contact instructor or department for details.	Seats (Total: 10)
0102	Jessica Lu Contact instructor or department for details.	Seats (Total: 4)

ARHU340 **Financial Entrepreneurship for Arts Leaders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: MUSC448E. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Richard Scerbo TuTh 9:30am - 10:45am *Reserved for Arts Leadership Minors; please contact ARHU-School of Theatre, Dance, and Performance Studies for permission to register.*	Seats (Total: 14) PAC 1809
0102	Richard Scerbo TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1809

ARHU375 **The TV Writers Room Screenwriting for Television and Video**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Prerequisite: ARHU275, ARHU318, or FILM370; and permission of instructor. Additional information: Priority in enrollment will be given to students participating in the Jimenez-Porter Writers' House and FILM studies programs.

Students engage with the theory and practice of screenwriting for television and video. Students read and watch teleplays designed to teach advantages of the television format. Students apply what they learn to prepare frequent writing exercises, share and provide feedback for peers scripts in a workshop format, and work together as a Writers Room to prepare an original pilot episode.

0101	Paul Cote M 6:00pm - 8:30pm	Seats (Total: 15) QAN 1132

ARHU386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-College of Arts & Humanities. Restriction: Junior standing or higher.

0101	Paula Nadler Contact instructor or department for details.	Seats (Total: 30)
0201	Paula Nadler Contact instructor or department for details. *This section is intended for students engaging in research-based internships.*	Seats (Total: 5)

0301	Susan Miller	Seats (Total: 3)
	Contact instructor or department for details.	
	This section is restricted to students enrolled in the Arts Leadership Minor.	

ARHU458 **Graduate School Preparation**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

Designed for Juniors and Seniors who are interested in applying to graduate school. Topics include skills needed for the graduate school search and application process, evaluation and reflection of application materials, preparation for GRE exam, and exploration into career options after graduate school. Focus on the Humanities fields.

0101	Paula Nadler	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ARHU468A **Peer Mentoring Program; Arts and Humanities' Ambassador Program**

(Perm req)

Credits: 1 Grading Method: Regular

A workshop for sophomore, junior or senior students who wish to serve as peer mentors helping first-year students to cope with the numerous issues which often arise in the transition to the university.

Restricted to current ARHU students who will serve as ambassadors for the College of Arts and Humanities.

0101	Jessica Krenek	Seats (Total: 20)
	M 4:00pm - 5:30pm	KEY 0124

ARHU486 **Internship Practicum in Arts and Humanities**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Have completed previous internship at U of MD. Restriction: Must be in a major in ARHU-College of Arts & Humanities; and permission of ARHU-College of Arts & Humanities; and minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits; and completed 12 credits at U of MD.

An internship intended for students who have already completed an internship for credit. ARHU486 must be a different experience from the internship students have already taken for credit. Generally students intern with a different company, but they may continue working for the same company if the job is significantly different. See ARHU internship coordinator for details.

0101	Paula Nadler Contact instructor or department for details.	Seats (Total: 25)

ARHU489 **Advanced Internship Practicum in ARHU**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Designed for students who have already completed at least 2 upper level internship courses for academic credit. It is an advanced practicum to assist students in continuing to develop and hone their professional writing, presentation and analytical skills.

Prerequisite: Permission of the College of Arts and Humanities.

0101	Paula Nadler Contact instructor or department for details.	Seats (Total: 2)

ARMY Army Fall 2022

ARMY106 **Basic Military Science I**

Credits: 3 Grading Method: Regular

Restriction: Students must meet Officer candidate criteria to participate in field training.

Introduction to the personal challenges and competencies that are critical for effective leadership and communication. Develops knowledge and competency in physical fitness through rigorous training and experiential leadership education through leadership laboratories.

0101	Donald Casey, Adriana Tarrago, Daniel Fass TuTh 11:00am - 12:15pm	Seats (Total: 31) PLS 1119
0102	Donald Casey, Adriana Tarrago, Daniel Fass MWF 9:00am - 9:50am	Seats (Total: 40) TYD 1132
FC01	Donald Casey, Daniel Fass, Adriana Tarrago TuTh 11:00am - 12:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 9) PLS 1119
FC02	Daniel Fass, Donald Casey, Adriana Tarrago MWF 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 9) TYD 1132

ARMY201 **Army Leadership Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher.

This course is an intensive examination of the Army Leadership Model in practice. The model is compared to leadership styles and techniques from government and industry and the comparative effectiveness of each. Students form their own personal leadership styles.

0102	Daniel Fass, Nicolas Vasquez	Seats (Total: 35)	
	TuTh 12:30pm - 1:45pm	TYD 1118	

ARMY301 **Advanced Military Leadership I**

Credits: 3 Grading Method: Regular

Reinforces understanding and application of Army leadership strategies, critical decision making methodologies, physical and mental fitness excellence. Includes a laboratory period in applied leadership, common military tasks and physical fitness.

0101	Daniel Fass, Nicolas Vasquez	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	PHY 1402	
	Th 4:00pm - 6:00pm	ARM 0131	Lab
	MWF 6:30am - 7:30am	ARM 0126	Lab

ARMY401 **Advanced Military Leadership III**

Credits: 3 Grading Method: Regular

Introduces contracted students to the study of Army structure, practices and processes exercised by Army Commanders and Staff in completing personnel, logistics, training and combat operations. Includes a laboratory in applied leadership skills and two field exercises.

0101	Daniel Fass	Seats (Total: 30)	
	TuTh 2:00pm - 3:15pm	ITV 1111	
	Th 4:00pm - 6:00pm	ARM 0135	Lab
	MWF 6:30am - 7:30am	ARM 0135	Lab

ARSC Air Science Fall 2022

ARSC059 **Air Force Officer Lab**

Credits: 1 Grading Method: Sat-Fail

Offers Air Force ROTC cadet officer's practical experience in military leadership, management, organization, and customs. May include visits to military installations, weekend laboratories, and flight orientation.

Class will have online meetings with an option to meet face-to-face. See instructor for details. Restriction: Must be an AFROTC cadet. Repeatable to 10 credits if content differs. Formerly: ARSC159. Additional information: This course does not carry any credit toward any degree at the University.

0101	Brawnlyn Patterson Th 7:00am - 8:50am	Seats (Total: 220) ARM 0126	Lab
FC01	Brawnlyn Patterson Th 7:00am - 8:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 10) ARM 0126	Lab

ARSC100 The USAF Today I

Credits: 1 Grading Method: Regular

Corequisite: AFROTC cadets must also register for ARSC059.

Freshman course for AFROTC cadets. Introduces students to the United States Air Force and encourages participation in Air Force Reserve Officer Training Corps. Featured topics include: overview of ROTC, special programs offered through ROTC, mission and organization of the Air Force, brief history of the Air Force, introduction to leadership and leadership related issues, Air Force Core Values, Air Force officer opportunities, and an introduction to communication studies. Leadership laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

An elective but required for freshmen desiring the four-year AFROTC program.

0101	Dain McGlashion Tu 8:00am - 8:50am	Seats (Total: 50) ARM 0135
0102	Dain McGlashion Th 9:00am - 9:50am	Seats (Total: 70) ARM 0126
0103	Dain McGlashion Th 1:00pm - 1:50pm	Seats (Total: 70) ARM 0126
FC01	Dain McGlashion Th 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) ARM 0126
FC02	Dain McGlashion Th 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 10) ARM 0126

ARSC200 **The Development of Air Power I**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Corequisite: AFROTC cadets must also register for ARSC059.

Sophomore course for AFROTC cadets. Study of factors contributing to the development of air power from its earliest beginnings through two world wars; the evolution of air power concepts and doctrine; introductory leadership; and assessment of communicative skills.

An elective, but required for sophomores in the four-year AFROTC program. Military cadets must also enroll in ARSC 159.

0101	Brawnlyn Patterson Th 10:00am - 10:50am	Seats (Total: 40) ARM 0126
0102	Brawnlyn Patterson Th 2:00pm - 2:50pm	Seats (Total: 35) BPS 1236
0103	Brawnlyn Patterson Tu 10:00am - 10:50am	Seats (Total: 50) TYD 1118

ARSC300 **Management and Leadership I**

(Perm req)

Credits: 3 Grading Method: Regular

Corequisite: AFROTC cadets must also register for ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Junior standing or higher.

The study of leadership and management fundamentals, professional knowledge, Air Force doctrine, and written and oral communication skills. Case studies are used to examine leadership and management situations. This course will satisfy credit toward a minor in military studies.

0101	Steven Cicchetto Th 9:00am - 11:50am	Seats (Total: 35) HBK 0105
0102	Steven Cicchetto TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0118
0103	Steven Cicchetto Contact instructor or department for details.	Seats (Total: 5)

ARSC400 **National Security Forces in Contemporary American Society I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Permission of UGST-AFROTC-Air Science; or (ARSC300 or ARSC301). Corequisite: ARSC059; or permission of UGST-AFROTC-Air Science. Restriction: Senior standing.

Study of American national security policy and processes to include information and implementation, impact of major national and international actors, and development of major policy issues. This course will satisfy credit towards a minor in military studies.

0101	Blake Harness Th 9:00am - 11:50am	Seats (Total: 27) JMZ 0122
0102	Blake Harness TuTh 2:00pm - 3:30pm	Seats (Total: 18) MTH 0104
0103	Blake Harness MW 1:00pm - 2:30pm	Seats (Total: 5) Location: TBA

ARTH Art History & Archaeology Fall 2022

ARTH169A **Special Topics in Study Abroad I; Roman Archaeology On-Site**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169B **Special Topics in Study Abroad I; Arts of Modernity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH169I **Special Topics in Study Abroad I; Art of Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH200 **Art and Society in Ancient and Medieval Europe and the Mediterranean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA General Education: DSHU, DVUP

Examines the material culture and visual expressions of Mediterranean and European societies from early times until ca. 1300 CE, emphasizing the political, social, and religious context of the works studied, the relationships of the works to the societies that created them, and the interrelationship of these societies.

0101	Emily Egan TuTh 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
0102	Emily Egan TuTh 11:00am - 11:50am W 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
0103	Emily Egan TuTh 11:00am - 11:50am W 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0104	Emily Egan TuTh 11:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0105	Emily Egan TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0106	Emily Egan TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion

ARTH201 **Art and Society in the West from the Renaissance to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

Examines representative European and American works of art from the later Middle Ages to the present, highlighting the dynamic exchange between artistic and cultural traditions both within periods and across time.

0101	Anthony Colantuono MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0102	Anthony Colantuono MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3219	Discussion
0103	Anthony Colantuono MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion

0104	Anthony Colantuono MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 25) ASY 2203 ASY 3207	Discussion
FC01	Zoe Copeman MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) BPS 1238	

ARTH260C **Art and Activism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP, SCIS

Can art effect social change? How may we use the history of radical and avant-garde art to inform present-day movements and models of artistic and creative activism? This course explores the modern and contemporary history of political art and arts activism on local, national, and global scales.

Restricted to students in Carillon Communities.

0101	Abigail McEwen TuTh 9:30am - 10:45am	Seats (Total: 35) ESJ 1309	

ARTH261 **Monuments, Monumentality, and the Art of Memorial**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Why do societies create monuments? And why do they preserve and destroy, change and remove them? How do monuments embody cultural values, shape historical narratives, and become sites of mourning and memory? This course investigates the political and cultural work of monuments across time and space, from the ancient world to European empires to the contemporary United States. The issues we consider include intercultural exchange and religious contexts, race and representation, and appropriation and iconoclasm.

0101	Tess Korobkin MW 11:00am - 11:50am M 9:00am - 9:50am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0102	Tess Korobkin MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 25) ASY 2203 ASY 3211	Discussion
0103	Tess Korobkin MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ASY 2203 ASY 3215	Discussion

0104	Tess Korobkin	Seats (Total: 25)	
	MW 11:00am - 11:50am F 11:00am - 11:50am	ASY 2203 ASY 3207	Discussion

ARTH269A **Special Topics in Study Abroad II; Archaeology and Art of Ancient Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269F **Special Topics in Study Abroad II; Dante's Florence**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269P **Special Topics in Study Abroad II; From Medieval to Contemporary: Exploring the Great Art and Architecture of Prague**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH269R **Special Topics in Study Abroad II; Art of Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH305 **Archaeological Methods and Practice**

Credits: 3 Grading Method: Regular General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, CLAS305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Matthew Suriano	Seats (Total: 35)	
	TuTh 2:00pm - 3:15pm	SQH 1103	

ARTH335 **Seventeenth-Century Art in the Netherlands**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Painting, sculpture and architecture in seventeenth-century Netherlands.

0101	Aneta Georgievska-Shine	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ASY 3211

ARTH351 **Picturing Contemporary Life: Art Since 1945**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Visual art since 1945, with an emphasis on North America and Europe.

0101	Joshua Shannon	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ASY 3215

ARTH359G **Film as Art; Masters of Cinematic Fantasy: Del Toro, Miyazaki, Burton**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

The study of film as a visual art, from theoretical, cultural and aesthetic perspectives. Content varies by semester.

This comparative film course explores three different approaches to fantasy. While these approaches share international cross- influences, they are also shaped by very different cultures; Guillermo Del Toro's Mexican Catholicism, Hayao Miyazaki's Japanese Shinto context and Tim Burton's secular culture of American Disneyfied pop culture.

0101	Greg Metcalf	Seats (Total: 25)
	W 3:30pm - 7:00pm	ASY 4213A

ARTH362 **Presently Black: Contemporary African American Art**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Looks critically at African-American and African diaspora art, focusing particularly on works made in the 20th and 21st centuries. Organized chronologically, this class will provide students with a more thorough understanding of this period of art, as well as the overall connection of visual material to the social, the political, and the aesthetic frames of its production. We will study the ways in which African-American visual production has been shaped by larger discourses about American art, but has also responded to the very real circumstances of racial exclusion in both the mainstream art world and larger society. Students will also have a chance to interact directly with the collection of the David C. Driskell Center throughout the semester.

0101	Alison Singer	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ASY 3215

ARTH369F **Special Topics in Study Abroad III; TRAFFICKERS, THIEVES, AND FORGERS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369G **Special Topics in Study Abroad III; Art Gallery Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369P **Special Topics in Study Abroad III; History and Workshop of Latin America Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH369Q **Special Topics in Study Abroad III; Patrons and Artists in Baroque Italy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTH386 **Experiential Learning**

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher.

Supervised internship experience in diverse areas of art historical, archaeological, and museological work.

Contact department for information to register for this course.

ARTH389L **Special Topics in Art History and Archaeology; Visual Cultures of Islam**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Crosslisted with HIST219E, AAST298B, PERS298E, and RELS219E. Credit granted for HIST219E, ARTH389L, AAST298B, PERS298E, or RELS219E. Visual Cultures of Islam is part of the Digital Islamic Studies Curriculum (digitalislam.umich.edu). This course is taught by an expert in the field of Islamic Art at the University of Michigan, and digitally shared with the University of Maryland. The course explores definitions of "Islamic" art and investigates various visual cultures of Islam around the world from the 7th to the 20th century. The course meets twice a week in real time using video conferencing technology and students are able to enroll directly at Maryland for course credit.

0101	Instructor: TBA TuTh 11:30am - 1:00pm	Seats (Total: 12) TLF 2100

ARTH389W **Special Topics in Art History and Archaeology; Practical Writing in Art History: Museum and Gallery Communications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Raino Isto M 4:00pm - 6:30pm	Seats (Total: 20) ONLINE

ARTH392 **Contemporary Chinese Art and Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: CINE337, FILM329L. Credit only granted for: ARTH392, FILM329L or CINE337.

Contemporary Chinese art and film are arguably the most vibrant of all national arts at the turn of the millennium and have become the face - both figuratively and literally - of contemporary China, a complex society with historic overlays of Confucianism, Taoism, Buddhism, Communism, Post-socialism, and state capitalism. Students will consider a wide range of art forms (painting, photography, video, installation, web-based media, and film) in four broad themes (uses of the past; critiques of power; representations of race, gender, and sexuality; socially engaged art) and explore the complex intertwining of the political, historical, and aesthetic aspects in Chinese contemporary art and film, as well as the multiple contexts in which these artworks are created and circulated.

Cross-listed with FiLM329L. Credit only granted for ARTH392 or FILM329L.

0101	Jason Kuo M 1:00pm - 3:30pm	Seats (Total: 25) ASY 4213A

ARTH488A **Colloquium in Art History; Contemporary Art in Local Collections**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

This course considers art since 1965 by focusing on works we can study in person. We will track many of the major movements in art of the last sixty years but will study particularly the many extraordinary examples in local collections, both on campus and in nearby Washington, DC. Students will practice visual analysis, criticism, and historical contextualization, among other kinds of art writing, and pursue a research project on themes including human identity categories, justice, the environment, and the roles of art in ccontemporary life.

0101	Joshua Shannon F 1:00pm - 3:30pm	Seats (Total: 14) ASY 3215

ARTH488C **Colloquium in Art History; Contemporary Chinese and Chinese American Cinema on Women**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

Cross-listed with CINE429C and WGSS498J. Credit only granted for ARTH488C, CINE429C, FILM429C, or WGSS498J. This course examines the representation of Chinese and Chinese-American women in contemporary cinema from mainland China, Taiwan, Hong Kong, and the Chinese diaspora. The changing images of women in a spectrum of genres, by some of the most representative directors, will be studied through the application of major critical concepts in visual culture and cinema studies.

0101	Jason Kuo	Seats (Total: 14)
	W 3:00pm - 5:30pm	ASY 3219

ARTH488H **Colloquium in Art History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Colloquium to investigate a specific topic in depth.

Contact department for information to register for this course.

ARTH489V **Special Topics in Art History; Markets and Collecting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ARTT489C. Credit granted for ARTT489C or ARTH489V.

0101	Rex Weil	Seats (Total: 15)
	Th 11:30am - 2:00pm	JMZ 3122

ARTH498 **Directed Studies in Art History I**

(Perm req)

Credits: 2-3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-Art History & Archaeology department. Restriction: Junior standing or higher. Repeatable to 99 credits if content differs.

Contact department for information to register for this course.

ARTH499 **Honors Thesis**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ARTH692 **Methods of Art History**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Methods of research and criticism applied to typical art-historical problems; bibliography and other research tools.

For all non-Art History and Archaeology majors, permission of the department is required.

0101	Elizabeth Honig	Seats (Total: 6)
	Th 12:30pm - 3:00pm	ASY 4304

ARTH738K **Seminar in Seventeenth-Century Southern European Art; Humanism, Antiquarianism and the Digestion of Ancient Art from Renaissance to Neoclassicism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar will explore the secondary and primary literatures pertaining to the humanistic digestion of the antique, also examining how it informed the theory and practice of the visual arts and the education of artists from the later fourteenth through early nineteenth centuries, and beyond. Topics will include the distinction between the rhetorical/probabilistic structure of Renaissance humanistic antiquarianism and modern scientific archaeology; the humanistic philological methods employed in the interpretation of ancient iconography; the politicization of ancient art; the purpose of artists drawings after the antique; the notably unscientific thinking that informed the restoration of fragmentary ancient works; the problem of perceived cultural and artistic continuities between ancient Rome and Renaissance Italy; the relationship between seventeenth-century Roman Classicism and later eighteenth- and nineteenth-century Neoclassicism; the recovery and interpretation of ancient painting; and the use of plaster casts in academic art education.

0101	Anthony Colantuono	Seats (Total: 9)
	M 12:30pm - 3:00pm	ASY 4304

ARTH758A **Seminar in American Art; Blackness in Relief**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This course explores the possibility of approaching a historical period from the study of a single medium: printmaking. In the United States African American artists in particular have exploited printmaking. The course will approach both the technical aspects of the medium (via hands-on printmaking workshops) as well as its connection to a range of social and political imperatives. Students will consider the relationship of artists and works to events such as wars and broader conflicts, social inequality, and even environmental justice.

0101	Jordana Saggese	Seats (Total: 9)
	Tu 12:30pm - 3:00pm	ASY 4304

ARTH789E **Selected Topics in Art History; The "Western Tradition" in a Global Context: The National Gallery s West Building**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This course takes a critical look at the National Gallery of Art's collections of "Western" paintings, sculptures, works on paper and decorative arts to trace the values embodied by particular works and groups of works, and the ways in which those values have been reaffirmed, redefined, deconstructed and/or negated in the decades since the museum's opening in 1941. Sessions will take place at the museum, where students will engage directly with objects to expand the interpretive range.

0101	Mary Morton M 3:00pm - 5:30pm	Seats (Total: 9) ASY 4304	

ARTH798 **Directed Graduate Studies in Art History**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ARTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ARTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ARTT Art Studio Fall 2022

ARTT100 **Two-Dimensional Design Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Principles and elements of two-dimensional design. Introduction to visual communication.

Students must pay a $40.00 laboratory studio fee.

0101	Jeremy Kunkel TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0201	Jeremy Kunkel TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0501	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab

0601	Wendy Jacobs MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2318	Lab
0701	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab
0801	Wendy Jacobs MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 2318	Lab

ARTT110 **Elements of Drawing I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Students must pay a $40.00 laboratory studio fee.

0101	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0201	Matthew McLaughlin MW 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab
0501	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2317	Lab
0701	Peter Cullen TuTh 3:30pm - 6:00pm	Seats (Total: 18) ASY 2317	Lab
0801	Peter Cullen TuTh 3:30pm - 6:00pm	Seats (Total: 18) ASY 2321	Lab
0901	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab
1001	Jowita Wyszomirska TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
1101	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2317	Lab

1201	Irene Pantelis MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 2321	Lab
FC01	Danielle Leizman MW 6:00pm - 8:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) ASY 2321	

ARTT110S **Elements of Drawing I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Fundamental concepts, media, and processes of drawing. Emphasis on observation and representation in combination with individual expression. Subject matter includes still life, human figure, nature, the built environment, and conceptual projects.

Restricted to College Park Scholars - Arts. Students must pay a $40.00 laboratory studio fee.

0601	Irene Pantelis TuTh 9:00am - 11:30am	Seats (Total: 18) ASY 2321	Lab

ARTT150 **Introduction to Art Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Fundamental concepts of global, philosophic, and critical art theory examined through various historic and contemporary texts, and the analysis of works of art.

0101	Jason Kass MW 1:00pm - 1:50pm M 11:00am - 11:50am	Seats (Total: 25) TYD 1101 TYD 0111	Discussion
0102	Jason Kass MW 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 25) TYD 1101 TYD 0111	Discussion
0103	Jason Kass MW 1:00pm - 1:50pm W 12:00pm - 12:50pm	Seats (Total: 25) TYD 1101 TYD 0111	Discussion
0201	Rex Weil TuTh 3:30pm - 4:20pm Tu 2:00pm - 2:50pm	Seats (Total: 25) ASY 2203 TWS 1313	Discussion

0202	Rex Weil TuTh 3:30pm - 4:20pm Th 2:30pm - 3:20pm	Seats (Total: 25) ASY 2203 TWS 1313	 Discussion
0203	Rex Weil TuTh 3:30pm - 4:20pm Th 12:30pm - 1:20pm	Seats (Total: 25) ASY 2203 TWS 1313	 Discussion

ARTT200 **Three-Dimensional Art Fundamentals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110.

Fundamental concepts of three-dimensional form and space examined through the manipulation and organization of various materials.

Students must pay a $40.00 laboratory studio fee.

0101	Charlotte Richardson-Deppe MW 9:00am - 11:30am	Seats (Total: 18) ASY 1311	 Lab
0201	Stephanie Greene/Mercedes TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	 Lab
0301	Steven Jones MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 1311	 Lab

ARTT210 **Elements of Drawing II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT110.

Continuation of ARTT110 with additional emphasis on color, figure drawing, and contemporary issues.

Students must pay a $40.00 laboratory studio fee.

0101	Emily Conover TuTh 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	 Lab
0201	Matthew McLaughlin MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	 Lab

0301	Julia Kwon MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 2315	Lab
0401	Patrick Craig TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2315	Lab

ARTT255 **Introduction to Digital Art and Design Processes**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT100 and ARTT110. Credit only granted for: ARTT255 or ARTT354. Formerly: ARTT354.

Introduction to basic software and principles of digital imaging, and how they are applied to art and design. Topics covered: Digital image construction and manipulation, Vector-Based digital techniques layout, typography, etc), time-based digital techniques (video and audio composition and manipulation), and basic interactivity (web-design). Digital media used to explore visual principles established in ARTT100.

Students must pay a $40.00 laboratory studio fee.

0101	Narendra Ratnapala TuTh 12:30pm - 3:00pm	Seats (Total: 18) ATL 1410	Lab
0201	Narendra Ratnapala TuTh 3:30pm - 6:00pm	Seats (Total: 18) ATL 1410	Lab
0301	Shannon Collis Class time/details on ELMs	Seats (Total: 18) ONLINE	Lab

ARTT269R **Special Topics in Study Abroad II; Art of Renaissance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT320 **Elements of Painting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes of oil and/or acrylic painting.

Students must pay a $40.00 laboratory studio fee.

0101	Patrick Craig TuTh 12:30pm - 3:00pm *Emphasizes acrlic paint.*	Seats (Total: 18) ASY 3312	Lab
0201	Richard Klank MW 9:00am - 11:30am	Seats (Total: 12) ASY 3322	Lab
0301	Julia Kwon MW 3:30pm - 6:00pm	Seats (Total: 18) ASY 3322	Lab

ARTT330 **Elements of Sculpture: Metal Casting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Students must pay a $40.00 laboratory studio fee.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 12) ASY 1310

ARTT330H **Elements of Sculpture: Metal Casting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to metal casting.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory fee.

0101	John Ruppert MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1310

ARTT331 **Elements of Sculpture: Steel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Students must pay a $40.00 laboratory studio fee.

0101	John Ruppert, Charlotte Richardson-Deppe	Seats (Total: 10)	
	MW 3:00pm - 5:30pm	ASY 1314	

ARTT331H **Elements of Sculpture: Steel**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes related to steel fabrication; torch cutting, welding, hot forging, and finishing.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory fee.

0101	John Ruppert	Seats (Total: 2)	
	MW 3:00pm - 5:30pm	ASY 1314	

ARTT333 **Elements of Sculpture: Wood and Mixed Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Sculptural concepts and fundamental processes using wood and mixed media.

Students must pay a $40.00 laboratory fee.

0101	Jeremy Kunkel	Seats (Total: 12)	
	TuTh 3:00pm - 5:30pm	ASY 1311	

ARTT341 **Elements of Printmaking: Woodcut and Relief**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

There is a $40.00 lab fee for this course.

0101	Jessica Gatlin	Seats (Total: 12)	
	MW 12:30pm - 3:00pm	ASY 1317	Lab

ARTT341H **Elements of Printmaking: Woodcut and Relief**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to woodcuts, linocuts, and other relief printing media.

There is a $40.00 lab fee for this course. This course is restricted to departmental honors students only.

0101	Jessica Gatlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317	Lab

ARTT343 **Elements of Printmaking: Screen Printing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

0101	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 12) ASY 1317
0201	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 12) ASY 1317

ARTT343H **Elements of Printmaking: Screen Printing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Concepts and fundamental processes related to silkscreen printing.

Students must pay a $40.00 laboratory studio fee. This course is restricted to departmental honors students only.

0101	Justin Strom TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 1317
0201	Justin Strom TuTh 12:30pm - 3:00pm	Seats (Total: 2) ASY 1317

ARTT353 **Elements of Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT200, ARTT210, and ARTT150; or permission of ARHU-Art department.

Introduction to digital photographic image-making. With an emphasis on technical, aesthetic and conceptual understanding of the photographic medium, camera operation, and photographic composition. Students must have access to a Digital SLR or mirrorless camera capable of interchangeable lenses for this class.

Students must pay a $40.00 laboratory studio fee. SLR film camera required.

0101	Wendy Jacobs	Seats (Total: 14)	
	TuTh 3:30pm - 6:00pm	ASY 3304	
	Emphasis on Digital Photography, a DSLR camera is required for this section.		

ARTT355 **Intermediate Graphic Design Principles**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; and must be admitted to the Graphic Design Concentration (Track 3). Credit only granted for: ARTT350 or ARTT355. Formerly: ARTT350.

Investigation of basic concepts, history, techniques, and materials used by professional graphic designers, focusing on typography. Explores various aspects of design related to typography through examination and production of many types of finished work.

Students must pay $40.00 laboratory studio fee.

0101	Anne Kerns	Seats (Total: 25)	
	MW 9:00am - 11:30am	ASY 2322	Lab

ARTT356 **Graphic Design Processes**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; and must have been admitted to Graphic Design Concentration (Track 3). Credit only granted for: ARTT351 or ARTT356. Formerly: ARTT351.

Explores computer graphics and visual communcation principles in a time-based context. Examination of fundamental design principles through digital projects that involve photo manipulation, digital illustration, layout, animation, and web design.

Students must pay $40.00 laboratory studio fee.

0101	Anne Kerns	Seats (Total: 25)	
	MW 12:30pm - 3:00pm	ASY 2322	Lab

ARTT369P **Special Topics in Study Abroad III; Spain Seen by Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT370 **Elements of Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT150, ARTT200, ARTT210, and ARTT255; or permission of ARHU-Art department.

Exploration of image creation and manipulation, interactivity, and linkages between digital audio and video. Emphasis on issues in contemporary digital art.

Students must pay $40.00 laboratory studio fee.

0101	Brandon Morse TuTh 12:30pm - 3:00pm	Seats (Total: 14) ASY 3304	Lab
0201	Johab Silva MW 3:00pm - 5:30pm	Seats (Total: 14) ASY 3304	Lab

ARTT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-Art department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ARTT389 **Department of Art Undergraduate Teaching Assistantship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

Contact department for information to register for this course.

ARTT399 **Department of Art Research Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art-related research issues.

Contact department for information to register for this course.

ARTT409K **Study Abroad Special Topics IV; New Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ARTT418B **Advanced Drawing Studio; A Contemporary Approach**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT150, ARTT200, and ARTT210; plus one 300-level studio course; or permission of department. Students must pay a $40.00 laboratory studio fee. Repeatable to 12 credits. Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

0101	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 16) ASY 3318	Lab
0201	Steven Jones MW 3:30pm - 6:00pm	Seats (Total: 16) ASY 3312	Lab
0301	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 16) ASY 2314	Lab

ARTT418H Advanced Drawing Studio; Honors

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level drawing studio emphasizing advanced concepts and processes related to drawing; emphasis on contemporary art issues and individual directions.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory studio fee.

0101	Matthew McLaughlin MW 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318	Lab
0201	Steven Jones MW 3:30pm - 6:00pm	Seats (Total: 2) ASY 3312	Lab
0301	Jowita Wyszomirska TuTh 3:30pm - 6:00pm	Seats (Total: 2) ASY 2314	Lab

ARTT426 Advanced Painting: Art and Community I

Credits: 3 Grading Method: Regular

Prerequisite: ARTT320; or permission of the Art Department.

Designed for Art and design, architecture, urban planning, and public engagement majors seeking to gain more experience in the public art process. Through public artworks, students will explore ethical methods of community engagement, mural design and production. This course will have 1-2 visiting artists give lectures and/or participate in a workshop.

0101	Brandon Donahue MW 12:30pm - 3:00pm	Seats (Total: 18) ASY 3312	Lab

ARTT428 **Advanced Painting Studio; Painting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: ARTT320 or permission of the department. Students must pay a $40.00 laboratory studio fee. Repeatable to 12 credits. Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions.

0101	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 18) ASY 3318	Lab
0201	Emily Conover TuTh 3:30pm - 6:00pm *Emphasizes acrylic paint.*	Seats (Total: 18) ASY 3316	Lab
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 4) ASY 3322	Lab

ARTT428H **Advanced Painting Studio; Honors**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Restricted to departmental honors students only. Students must pay a $40.00 laboratory studio fee.

0101	Peter Cullen TuTh 12:30pm - 3:00pm	Seats (Total: 2) ASY 3318
0201	Emily Conover TuTh 3:30pm - 6:00pm *Emphasizes Acrylic Paint*	Seats (Total: 2) ASY 3316
0301	Richard Klank MW 9:00am - 11:30am	Seats (Total: 2) ASY 3322

0401	Brandon Donahue	Seats (Total: 2)	
	TBA	ASY 3318	Lab

ARTT428X **Advanced Painting Studio; Advanced Painting Studio**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level painting studio emphasizing advanced concepts and processes related to oil and acrylic painting; emphasis on contemporary art issues and individual directions in chosen media.

Contact department for information to register for this course.

ARTT438A **Advanced Sculpture Studio; Metal Casting and Mixed Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	John Ruppert	Seats (Total: 4)	
	MW 12:30pm - 3:00pm	ASY 1310	

ARTT438C **Advanced Sculpture Studio; Steel and Mixed Media Sculpture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

Prerequisite: Must have completed one 300-level sculpture course; or permission of instructor. Students must pay a $40.00 studio lab fee. Multi-level sculpture studio; continuation of media-specific sculpture courses with emphasis on contemporary art issues and individual directions in chosen media.

0101	John Ruppert	Seats (Total: 4)	
	MW 3:00pm - 5:30pm	ASY 1314	

ARTT454 **Advanced Graphic Design Principles: Design in Society**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ARTT355 and ARTT356.

Focus on social responsibility and community activism. History and theory of propaganda and advocacy-based design. Students explore current design practices, work individually, and collaborate in teams with non-profits or other clients with community-based or socio-cultural agendas. Research and writing-intensive course.

$40 laboratory studio fee.

0101	Antwon Key	Seats (Total: 25)	
	TuTh 12:30pm - 3:00pm	ASY 2322	Lab

ARTT457 **Advanced Interactive Design**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ARTT357.

Advanced concepts and techniques of interactive design and interactive software. Examination of corporate, client-based, and public service-based interactive graphic design. Emphasis on web-based interactive design structures.

$40 laboratory studio fee.

0101	Antwon Key	Seats (Total: 20)	
	TuTh 3:00pm - 5:30pm	ASY 2322	Lab

ARTT460 **Seminar in Art Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Senior standing.

Exploration of relationship between content and processes of art in a contemporary multi-cultural context.

Contact department for information to register for this course.

ARTT468A **Seminar on the Interrelationship Between Art and Art Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The relationship between a student's work and the theoretical context of contemporary art.

Contact department for information to register for this course.

ARTT468W **Seminar on the Interrelationship Between Art and Art Theory; History and Workshop of Latin America Photography**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The relationship between a student's work and the theoretical context of contemporary art.

Contact department for information to register for this course.

ARTT479A **Advanced Digital Media Studio; Code and Form**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Students must pay a $40.00 laboratory studio fee.

0101	Cy Keener MW 12:30pm - 3:00pm	Seats (Total: 15) ASY 3304

ARTT479C **Advanced Digital Media Studio**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Students must pay a $40.00 studio lab fee. Basics of sound recording, mixing, and processing, as well as creative applications of video projection-based practices, performance and installation art. Theoretical concepts central to sound and video projection as artistic media are also introduced.

0101	Shannon Collis TuTh 10:00am - 12:30pm	Seats (Total: 14) ASY 3304

ARTT479D **Advanced Digital Media Studio; Immersive and Virtual Environments**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Introduction to the uses of game development software in an artistic context. Practical examination of interactive, immersive and installation art as mediated through the context of real-time computer generated imagery and game engine methodologies. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell MW 6:00pm - 8:30pm	Seats (Total: 14) ASY 3304

ARTT479H **Advanced Digital Media Studio; Honors Advanced Digital Media**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Variable multi-level studio emphasizing advanced concepts and processes related to time-based, projection, installation, interactive, and audio/visual integrated digital art. Emphasis on contemporary art issues and individual directions.

Prerequisite: ARTT370. Restricted to Departmental Honors students. Students must pay a $40.00 studio lab fee.

0101	Mollye Bendell	Seats (Total: 2)	
	MW 6:00pm - 8:30pm	JMZ 1123	Lab
	Honors Immersive and Virtual Environments.		
0201	Cy Keener	Seats (Total: 2)	
	MW 12:30pm - 3:00pm	ASY 3304	Lab
	Honors Code and Form.		

ARTT480H **Honors Seminar**

(Perm req)

Credits: 3 Grading Method: Regular

Team-taught seminar focusing on relationship between student's work and the theoretical context of contemporary art.

Students must pay $40.00 laboratory fee.

0101	Cy Keener	Seats (Total: 7)	
	F 10:00am - 1:30pm	ASY 2311	Lab

ARTT481 **Advanced Specialization Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-Art department.

Seminar combines contemporary art theory, criticism, professional practice and career preparation in relation to students works from all areas of specialization.

0101	Steven Jones	Seats (Total: 15)
	W 6:00pm - 8:30pm	ASY 2315

ARTT489C **Advanced Special Topics in Art; Markets and Collecting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Cross-listed with ARTH489V. Credit granted for ARTT489C or ARTH489V.

0101	Rex Weil	Seats (Total: 15)
	Th 11:30am - 2:00pm	JMZ 3122

ARTT489I **Advanced Special Topics in Art; Digital Imaging**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Prerequisite: ARTT354. Students must pay a $40.00 laboratory studio fee.

Contact department for information to register for this course.

ARTT489R **Advanced Special Topics in Art; New Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

Contact department for information to register for this course.

ARTT489T **Advanced Special Topics in Art; The Contemporary Art World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studio art and theory within the context of a special topic.

An examination of the contemporary art world s methods, values, and institutional power dynamics through analysis of recent major art exhibitions including the Whitney Biennial, the Venice Biennale, and Documenta 15. Students will collectively interrogate the current state of the art world and respond by proposing new, expanded, and/or alternative approaches.

0101	Jason Kass	Seats (Total: 14)
	MW 9:30am - 10:45am	ASY 3304

ARTT498A **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498B **Directed Studies in Studio Art**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498H **Directed Studies in Studio Art; Honors Thesis**

(Perm req)

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Restricted to departmental honors students only. Prerequisite: permission of department. Students must pay a $40.00 studio lab fee.

Contact department for information to register for this course.

ARTT498I **Directed Studies in Studio Art; Animation, Editing, and Special Effects**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Advanced independent work in Studio Art. Meeting with faculty and studio time arranged.

Contact department for information to register for this course.

ARTT618 **Drawing; Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT628 **Painting; Painting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Graduate painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT638 **Sculpture; Sculpture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT648 **Printmaking; Printmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT698C **Directed Graduate Studies in Studio Art; Graduate Teaching Practicum**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent work. Meetings with faculty and studio time arranged.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT699B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT718 **Drawing; Drawing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in drawing for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT728 **Painting; Painting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in painting for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT738 **Sculpture; Sculpture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in sculpture for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT748 **Printmaking; Printmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Independent studies in printmaking for advanced special students.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT768 **Graduate Colloquium**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Examines various aspects of art, art theory and criticism in a contemporary and multi-cultural context. Relates student work to this context.

Students must pay a $60.00 laboratory studio fee.

0101	Brandon Donahue	Seats (Total: 20)
	Th 6:30pm - 9:30pm	ONLINE

ARTT798A **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT798B **Directed Graduate Studies in Studio Art**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Independent graduate studies.

Students must pay a $60.00 studio lab fee.

Contact department for information to register for this course.

ARTT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR Astronomy Fall 2022

ASTR100 **Introduction to Astronomy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Credit only granted for: ASTR100, ASTR101, or ASTR120.

An elementary course in descriptive astronomy, especially appropriate for non-science students. Topics include the Sun, Moon, planets, stars, and nebulae, galaxies, and evolution of the Universe.

0101	Thaddeus Komacek TuTh 9:30am - 10:45am M 1:00pm - 1:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0102	Thaddeus Komacek TuTh 9:30am - 10:45am M 2:00pm - 2:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0103	Thaddeus Komacek TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0104	Thaddeus Komacek TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion
0105	Thaddeus Komacek TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) PHY 1412 ATL 2400	Discussion

0106	Thaddeus Komacek TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) PHY 1412 ATL 2400	 Discussion
FC01	James Hunt TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ATL 2400 ATL 2400	 Discussion

ASTR101 **General Astronomy**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Credit only granted for: ASTR100, ASTR101, or ASTR120.

Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material, computer simulations, and standard laboratory equipment.

Discussion sections and lab sections do not meet the first week of classes. Attend lecture before coming to discussion or lab sections. Students must pay a $50.00 Laboratory Materials fee.

0101	Douglas Hamilton TuTh 11:00am - 12:15pm Tu 5:30pm - 7:30pm Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0102	Douglas Hamilton TuTh 11:00am - 12:15pm W 8:30am - 10:30am Tu 3:30pm - 4:20pm	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0103	Douglas Hamilton TuTh 11:00am - 12:15pm W 11:00am - 1:00pm W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0104	Douglas Hamilton TuTh 11:00am - 12:15pm Th 3:30pm - 5:30pm W 10:00am - 10:50am	Seats (Total: 20) PHY 1412 ATL 0254 ATL 2400	 Lab Discussion

0105	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm W 1:00pm - 3:00pm W 11:00am - 11:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0106	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 8:30am - 10:30am W 11:00am - 11:50am	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0107	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm W 6:00pm - 8:00pm W 12:00pm - 12:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0108	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm Th 6:00pm - 8:00pm W 12:00pm - 12:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0109	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm F 9:00am - 11:00am W 1:00pm - 1:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
0110	Douglas Hamilton	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm F 12:00pm - 2:00pm W 1:00pm - 1:50pm	PHY 1412 ATL 0254 ATL 2400	 Lab Discussion
FC01	James Hunt	Seats (Total: 12)	
	TuTh 6:00pm - 7:15pm M 6:00pm - 8:00pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	ATL 2400 ATL 0254 ATL 2400	 Lab Discussion

ASTR120 **Introductory Astrophysics - Solar System**

Credits: 3 Grading Method: Regular CORE: PS General Education: DSNS

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Must not have completed ASTR101 or ASTR100. Credit only granted for: ASTR100, ASTR101, or ASTR120.

For students majoring in astronomy or with a strong interest in science. Topics include development of astronomy, planetary orbits, electromagnetic radiation, telescopes as well as constituents and origin of the solar system (planets, satellites, comets, asteroids, meteoroids, etc.).

0101	Stuart Vogel TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 30) CCC 1205 ATL 2428	Discussion
0102	Stuart Vogel TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 30) CCC 1205 ATL 2428	Discussion

ASTR288 **Special Projects in Astronomy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

A faculty sponsor must be found by the students prior to enrollment.

Contact department for information to register for this course.

ASTR288I **Special Projects in Astronomy; Introduction to the Astronomy Major**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

Prerequisite: permission of department.

0101	Andrew Harris, Melissa Hayes-Gehrke M 4:00pm - 4:50pm	Seats (Total: 20) ATL 1106	
0201	Andrew Harris, Melissa Hayes-Gehrke Tu 4:00pm - 4:50pm	Seats (Total: 20) ATL 1106	

ASTR310 **Observational Astronomy**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: ASTR121; and (PHYS171 or PHYS161). Or permission of CMNS-Astronomy department. Restriction: Must be in Astronomy program.

Introduction to current optical observational techniques, with brief coverage of infrared, ultraviolet, and x-ray techniques. Statistics, spherical trigonometry time, catalogs, geometrical and physical optics, telescopes, and optical instruments. Effects of the atmosphere. Practical work at the observatory using a CCD camera. Some nighttime observing sessions.

0101	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 9:00am - 10:50am	Seats (Total: 15) ATL 1114 ATL 0224	 Lab
0102	Melissa Hayes-Gehrke TuTh 2:00pm - 3:15pm M 1:00pm - 2:50pm	Seats (Total: 15) ATL 1114 ATL 0224	 Lab

ASTR330 Solar System Astronomy

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or the General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR330 or GEOL212.

Designed primarily for non-science majors. The structure of planets and of their atmospheres, the nature of comets, asteroids, and satellites. Comparison of various theories for the origin of the solar system. Emphasis on a description of recent data and interpretation.

0101	Timothy Livengood TuTh 9:30am - 10:45am	Seats (Total: 60) ATL 2400

ASTR340 Origin of the Universe

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department.

Designed primarily for non-science majors. A study of our progression of knowledge about the universe. Topics include: early cosmological models, geocentric vs. heliocentric theory, curvature of space, Hubble's Law, Big Bang Theory, microwave background radiation, evolution of stars and galaxies, dark matter, active galaxies, quasars and the future of the universe.

0101	Alberto Bolatto TuTh 12:30pm - 1:45pm	Seats (Total: 60) ATL 2400

ASTR350 Black Holes

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: ASTR100 or ASTR101; and completion of the CORE Distributive Studies requirement in Mathematics and Sciences or General Education Fundamental Studies requirement in Mathematics. Or permission of CMNS-Astronomy department. Credit only granted for: ASTR398B or ASTR350. Formerly: ASTR398B.

Black holes are the most exotic prediction of Einstein's Theory of General Relativity and, amazingly, the Universe seems to manufacture these bizarre objects in copious numbers. As well as being the ultimate laboratory for studying the nature of space and time, they drive some of the most energetic and extreme phenomena known to astronomers (with quasars and gamma-ray bursts being just a couple of examples). In this introduction to the physics and astrophysics of black holes, we start by examining the basic physics of black holes, which fundamentally means understanding gravity. We then look at the nature of stellar-mass black holes and supermassive black holes. We will discuss the fairly recent realization that black holes may be crucial agents for regulating the growth of galaxies. Finally, we dive into the realm of theoretical physics and probe how black holes may provide a route for uncovering new laws of physics governing the structure of space and time.

0101	Richard Mushotzky TuTh 11:00am - 12:15pm	Seats (Total: 60) ATL 2400

ASTR380 **Life in the Universe - Astrobiology**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSNS

Designed primarily for non-science majors. Study of the astronomical perspective on the conditions for the origin and existence of life in the universe.

0101	David Grinspoon TuTh 2:00pm - 3:15pm	Seats (Total: 60) ATL 2400

ASTR399 **Honors Seminar**

(Perm req)

Credits: 1-16 | Grading Method: Regular, Pass-Fail, Audit

Credit according to work done.

Contact department for information to register for this course.

ASTR410 **Radio Astronomy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department.

Introduction to current observational techniques in radio astronomy. The radio sky, radiophysics, coordinates and catalogs, antenna theory, Fourier transforms, interferometry and arrays, aperture synthesis, and radio detectors.

0101	Lee Mundy	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	ATL 2428

ASTR415 **Computational Astrophysics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ASTR121; and (PHYS271 and PHYS270; or PHYS273). Or permission of CMNS-Astronomy department. Jointly offered with ASTR615. Credit only granted for: ASTR415 or ASTR615.

Introduction to the most important computational techniques being used in research in astrophysics. Topics include modern high performance computer architectures, scientific visualization and data analysis, and detailed descriptions of numerical algorithms for the solution to a wide range of mathematical systems important in astrophysics.

0101	Massimo Ricotti	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	ATL 2428

ASTR498 **Special Problems in Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

ASTR601 **Radiative Processes**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of CMNS-Astronomy department.

Emission, absorption, and scattering of radiation by matter, with astrophysical applications. Thermodynamics and statistical mechanics: LTE, Boltzmann, and Saha equations; radiative transfer; atomic and molecular radiation; plasma radiation and transfer: bremsstrahlung, synchrotron emission, Compton scattering.

0101	Eliza Kempton	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ATL 0201

ASTR670 **Interstellar Medium and Gas Dynamics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ASTR601; or permission of CMNS-Astronomy department.

Content of phases of the interstellar medium: physical processes in the ISM: ionization equilibrium, heating and cooling, interstellar dust; gas dynamics: fluid motions, instabilities, shock waves; magnetohydrodynamics.

0101	Benedikt Diemer MW 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR680 **High Energy Astrophysics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of CMNS-Astronomy department. Formerly: ASTR688M.

The structure, formation, and astrophysics of compact objects, such as white dwarfs, neutron stars, and black holes, are examined.

0101	Michael Miller TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 0201

ASTR688B **Special Topics in Modern Astronomy; Current Astronomy Research**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Special topics such as extragalactic radio sources, plasma astrophysics, the H.R. diagram, chemistry of the interstellar medium, radiophysics of the sun.

0101	Andrew Harris W 3:30pm - 5:30pm	Seats (Total: 30) ATL 2400

ASTR695 **Introduction to Research**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provides an introduction to research programs in the Department of Astronomy and a forum to explore possible research projects. Aimed at incoming graduate students.

0101	Eliza Kempton M 10:00am - 10:50am	Seats (Total: 20) ATL 2324

ASTR699 **Special Problems in Advanced Astronomy**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ASTR899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM Biochemistry Fall 2022

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SEF" are restricted to Post-Baccalaureate students who enroll through the Science in the Evening Program in the College of Computer, Mathematical and Natural Sciences. Please note that this class is charged at the regular part-time tuition rate (on a per credit basis), even for full- time students. To register or to learn more about the Science in the Evening program, you must contact the Life Sciences Outreach and Special Programs Office at (301) 405-6892.*

BCHM461 **Biochemistry I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461 or BCHM463.

First semester of a comprehensive introduction to modern biochemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

0101	Christopher Capp TuTh 9:30am - 10:45am	Seats (Total: 120) CHM 1402
0102	Douglas Julin MW 4:00pm - 5:15pm	Seats (Total: 120) CHM 1402
0103	Douglas Julin TuTh 12:30pm - 1:45pm	Seats (Total: 120) CHM 1402

BCHM462 **Biochemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BCHM461. Credit only granted for: BCHM462 or BCHM463.

A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

0102	Bonnie Dixon MWF 11:00am - 11:50am	Seats (Total: 100) CHM 1402

BCHM463 Biochemistry of Physiology

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. Credit only granted for: BCHM461, BCHM462 or BCHM463.

A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

0101	Heather Tienson-Tseng TuTh 11:00am - 12:15pm	Seats (Total: 90) CHM 1402
0103	Bonnie Dixon MWF 12:00pm - 12:50pm	Seats (Total: 90) CHM 1402
ESG1	Ryan Marcheschi W 12:30pm - 1:45pm F 12:30pm - 1:45pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 50) Location: TBA ONLINE
SEF1	Bonnie Dixon M 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 40) CHM 2201

BCHM464 Biochemistry Laboratory

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for all College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: BCHM465. Restriction: BCHM, CHEM, and Nutritional Sciences majors have first priority, followed by other life science majors.

Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

Students must pay a $40.00 laboratory materials fee.

0101	Christopher Capp Tu 11:00am - 12:15pm Th 12:30pm - 5:30pm	Seats (Total: 18) ESJ B0320 ESJ 0316	 Lab

0102	Christopher Capp	Seats (Total: 18)	
	Tu 11:00am - 12:15pm W 12:00pm - 5:00pm	ESJ B0320 ESJ 0316	Lab

BCHM465 **Biochemistry III**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS

Prerequisite: BCHM461 or BCHM463; and a grade of C- or better in the prerequisite is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Recommended: BCHM462.

CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

0101	Theodore Dayie	Seats (Total: 80)
	TuTh 8:00am - 9:15am	CHM 1402

BCHM661 **Nucleic Acids I**

Credits: 2 | Grading Method: Regular, Audit

Prerequisite: BSCI410 and BCHM465.

Topics covered: Chemistry and structure of DNA and RNA, from nucleotides to chromatin, chromosomes, and genomes, and some methods for studying, synthesizing, sequencing and manipulating nucleic acids. Rudimentary genomics and bioinformatics. DNA Biology: selected aspects of the biochemistry and regulation of DNA replication, repair, and recombination, and how these processes interact with each other.

0101	Jason Kahn	Seats (Total: 45)
	Meets August 29, 2022 - October 14, 2022	
	MWF 9:30am - 10:50am	CHM 1224

BCHM662 **Nucleic Acids II**

Credits: 2 | Grading Method: Regular, Audit

Prerequisite: BCHM661.

Topics covered: Interactions between nucleic acids and ligands such as cations, drugs, and especially proteins. Sources of binding affinity and specificity. Selection-amplification methods. Description of several classes of protein-nucleic acids complexes. DNA/RNA catalysis, the origin of life, mobile genetic elements.

0101	Jason Kahn	Seats (Total: 45)
	Meets October 17, 2022 - December 12, 2022	
	MWF 9:30am - 10:50am	CHM 1224

BCHM669G **Special Topics in Biochemistry; Lipids and Membrane Proteins**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BCHM461.

0101	Jinwoo Lee	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	BSB 2118

BCHM671 **Protein Chemistry and Enzymic Catalysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BCHM461; or students who have taken courses with comparable content may contact the department.

Principles of protein structure, folding, and function, experimental characterization of structure, active sites, enzyme mechanisms and kinetics.

0101	Yanxin Liu	Seats (Total: 35)
	TuTh 9:30am - 10:50am	BSB 2118

BCHM698 **Literature Seminar in Biochemistry**

Credits: 2 Grading Method: Regular

Students will prepare and present a departmental seminar based on a topic in the current biochemical research literature.

0101	Myles Poulin	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM699 **Special Problems in Biochemistry**

Credits: 1-6 Grading Method: Regular, Audit

Laboratory experience in a research environment. Restricted to students in the non-thesis M.S. option.

Open only to non-thesis M.S. degree candidates.

Contact department for information to register for this course.

BCHM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BCHM889A **Seminar; Biochemistry**

Credits: 1 Grading Method: Regular, Audit

0101	Jinwoo Lee	Seats (Total: 75)
	Tu 11:00am - 12:15pm	CHE 2110

BCHM889C **Seminar; Allostery in DNA Binding**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889D **Seminar; Enzymology Recombination**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889F **Seminar; Antimicrobial Peptides**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889J **Seminar; Nucleic Acid Structures**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 10)
	Contact instructor or department for details.	

BCHM889M **Seminar; Modern Methods in NMR and Structural Biology**

Credits: 1-3 Grading Method: Regular, Audit

0101	Instructor: TBA	Seats (Total: 40)
	Contact instructor or department for details.	

BCHM889P **Seminar; Structure and Reactivity of Biopolymers**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)	

BCHM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BCHM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE Bioengineering Fall 2022

BIOE120 **Biology for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Introduction to the functions and interactions of biological systems from a quantitative perspective. Introduction to the modern experimental techniques and methods of data analysis. Roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

Students will be introduced to the functions and interactions of biological systems from a quantitative perspective. They will also be encourage d to solve problems through active inquiry, critical analysis,and creat ivity. Finally, roles for bioengineers in biology, and the role of biology in bioengineering will be elucidated.

0101	Brian Blair MWF 12:00pm - 12:50pm Th 5:00pm - 5:50pm	Seats (Total: 50) ESJ 1215 ESJ 1215	 Discussion
0201	Catherine Kuo TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	Seats (Total: 50) EGR 0108 ESJ 0215	 Discussion

BIOE121 **Biology for Engineers Laboratory**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering encompasses numerous sub-disciplines that apply engineering principles to analyze biological systems and that utilize engineering design strategies to solve biological and biomedical problems. This course is aimed at providing students with the opportunity to learn how biology and engineering can synergistically contribute to our understanding of such problems, and to gain hands-on experience in basic techniques relevant to Bioengineering.

0101	Brian Blair M 4:00pm - 4:50pm W 9:30am - 11:20am	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0102	Brian Blair M 4:00pm - 4:50pm W 3:00pm - 4:50pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0103	Brian Blair M 4:00pm - 4:50pm Th 9:30am - 11:20am	Seats (Total: 20) KEB 1110 AJC 1121	 Lab
0104	Brian Blair M 4:00pm - 4:50pm Th 2:00pm - 3:50pm	Seats (Total: 20) KEB 1110 AJC 1121	 Lab

BIOE221 **Academic and Career Planning**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: BIOE120 and BIOE121. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Provides practical tools to help Bioengineering majors think critically about their goals and career paths. Guides Bioengineering students through accessing useful resources both on- and off-campus.

0101	Rachel Chang Tu 4:00pm - 4:50pm	Seats (Total: 30) AJC 2119	
0201	Abby Shantzis Tu 4:00pm - 4:50pm	Seats (Total: 30) AJC 2134	

BIOE232 **Bioengineering Thermodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE232, ENES232, ENME232, or ENME320.

A quantitative introduction to thermodynamic analysis of bioengineering systems. Bioengineering encompasses a wide range of applications from nanoscale interactions (e.g. reactions between molecules), to cellular interactions (e.g. membrane electrical currents), to overall balances on organisms, all the way to large scale manufacturing. Each of these applications (and many others not mentioned) involve energy interactions which is the domain of thermodynamics. The basic laws of thermodynamics will be introduced and explained through a series of examples related to bioengineering systems.

0101	Giuliano Scarcelli TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 30) EGR 0108 AJC 2132	 Discussion
0102	Giuliano Scarcelli TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 30) EGR 0108 AJC 2132	 Discussion

BIOE241 **Biocomputational Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

0101	Kyung Koh MF 3:00pm - 3:50pm W 3:00pm - 3:50pm	Seats (Total: 30) CHE 2110 KEB 2107	 Discussion
0102	Kyung Koh MF 3:00pm - 3:50pm W 5:00pm - 5:50pm	Seats (Total: 40) CHE 2110 KEB 2111	 Discussion

BIOE331 **Biofluids**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: MATH246, BIOE120, BIOE121, BIOE241, and BIOE371; and must have completed or be concurrently enrolled in BIOE232. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE331, ENCE305, ENFP300 or ENME331.

Principles and applications of fluid mechanics with a focus on bioengineering topics. Content includes conservation of mass, momentum, and energy, as well as the application of these fundamental relations to hydrostatics, control volume analysis, internal and external flow, and boundary layers. Applications to biological and bioengineering problems such as tissue engineering, bioprocessing, imaging, and drug delivery.

0101	Gregg Duncan TuTh 2:00pm - 3:15pm F 1:00pm - 2:50pm	Seats (Total: 30) KEB 1200 AJC 2121	 Discussion
0102	Gregg Duncan TuTh 2:00pm - 3:15pm F 3:00pm - 4:50pm	Seats (Total: 30) KEB 1200 AJC 2121	 Discussion

BIOE340 **Modeling Physiological Systems and Lab**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BIOE120, BIOE121, BIOE241, and MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE340 or (BSCI440 and BSCI441).

Topics covered will include cell and general physiology, membrane physiology, blood cells and clotting, circulation, metabolism, respiration, and the nervous system. A lab component will also be included.

0101	John Fisher TuTh 3:30pm - 4:45pm Th 5:00pm - 6:30pm *Lab will meet in either KEB2107 or KEB2111.*	Seats (Total: 30) KEB 1110 KEB 2111	 Lab
0102	John Fisher TuTh 3:30pm - 4:45pm Th 5:00pm - 6:30pm	Seats (Total: 30) KEB 1110 KEB 2107	 Lab

BIOE371 **Linear Systems and Ordinary Differential Equations for Bioengineering Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241; and must have completed or be concurrently enrolled in MATH246. Restriction: Permission on ENGR-Fischell Department of Bioengineering department.

This class utilizes fundamentals in linear systems, including eigenvalues and eigenvectors, as well as linear differential equations, to study various problems in bioengineering and biological systems, with a particular emphasis on feedback, stability, controllability, and control design.

0101	Kyung Koh TuTh 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 30) KEB 1200 AJC 2134	 Discussion

0102	Kyung Koh TuTh 9:30am - 10:45am F 3:00pm - 3:50pm	Seats (Total: 30) KEB 1200 AJC 2134	Discussion

BIOE372 **Biostatistics for Experimental Design and Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: BIOE120, BIOE121, and BIOE241. Recommended: MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE372 or STAT464.

This course will instruct students in the fundamentals of probability and statistics through examples in biological phenomenon, the design of bioengineering experiments, and clinical data analysis. Fundamentals covered in the course include probability distributions, hypothesis testing, power analysis, regression analysis, and correlation analysis.

0101	Brian Blair MWF 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 30) KEB 1200 AJC 2134	Discussion
0102	Brian Blair MWF 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 35) KEB 1200 AJC 2134	Discussion

BIOE399 **Independent Study in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Prerequisite: permission of department.

Contact department for information to register for this course.

BIOE399H **Independent Study in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study.

Contact department for information to register for this course.

BIOE416 **Cardiovascular Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE331 and BIOE340. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE416 or BIOE489V. Formerly: BIOE489V.

An overview of engineering applications in the cardiovascular system. Covers cardiovascular anatomy, physiology and pathophysiology in the context of cell and tissue mechanics, fluid mechanics, thermodynamics, biotransport, neurovascular coupling, and imaging. Includes design of cardiovascular devices, sensors, biomaterials, and tissue engineered constructs.

0101	Alisa Clyne TuTh 2:00pm - 3:15pm	Seats (Total: 20) AJC 2121	

BIOE420 **Bioimaging**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Examines the physical principles behind major biomedical imaging modalities and new ways of using images for bio-related applications.

0101	Yang Tao TuTh 9:30am - 10:45am Tu 12:30pm - 1:20pm	Seats (Total: 30) KEB 1110 AJC 2134	 Discussion
0102	Yang Tao TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 30) KEB 1110 AJC 2134	 Discussion

BIOE437 **Computer-Aided Design in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE437, BIOE689V, ENME414, ENME272, or ENAE488D. Formerly: BIOE689V.

Introduction to Computer-Aided Design (CAD). Lecture topics will summarize design methodology, review best-practices in hardware development, and discuss engineering applications. The course will culminate in a student-selected project leveraging CAD.

0101	Kevin Aroom Tu 5:00pm - 7:45pm	Seats (Total: 40) KEB 2111	

BIOE442 **Python: Introduction to Programming and Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE241, BIOE120, BIOE121, and MATH241; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489A or BIOE442. Formerly: BIOE489A.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

0101	Jonathan Resop MWF 4:00pm - 4:50pm	Seats (Total: 30) KEB 2107	

BIOE453 **Biomaterials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231, MATH246, CHEM232, BIOE120, BIOE121, and BIOE241. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE453, CHBE457, or ENMA425.

Examination of the structure and function of natural biomaterials, and cell-extracellular matrix interactions. Study physical properties of synthetic biomaterials for biomedical applications. Understanding molecular level interactions between biomolecules and biomaterials to design novel biomaterials with desirable characteristics. Application of biomaterials as implants, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds will be covered.

0101	Xiaoming He TuTh 11:00am - 12:15pm M 9:00am - 9:50am	Seats (Total: 30) KEB 1200 AJC 2119	 Discussion
0102	Xiaoming He TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 30) KEB 1200 AJC 2119	 Discussion

BIOE457 **Biomedical Electronics & Instrumentation**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE121, BIOE241, PHYS261, MATH246, and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students learn fundamental concepts of electronics, assembly of electronic components into functional circuits, and integration of functional electronic devices and circuits into a system. In the lab component, students will learn to assemble and evaluate circuits and systems.

0101	Ian White MWF 10:00am - 10:50am W 12:00pm - 1:50pm	Seats (Total: 30) ESJ 0215 AJC 1120	 Lab
0102	Ian White MWF 10:00am - 10:50am W 3:30pm - 5:20pm	Seats (Total: 30) ESJ 0215 AJC 1120	 Lab

BIOE461 **Synthetic Biology and Biological Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246; or permission of ENGR-Fischell Department of Bioengineering department. Recommended: Completion of BSCI222 and/or BSCI330 recommended. Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Students are introduce to the scientific foundation and concepts of synthetic biology and biological engineering. Current examples that apply synthetic biology to fundamental and practical challenges will be emphasized. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

0101	Catherine Spirito MWF 1:00pm - 1:50pm	Seats (Total: 30) KEB 1110	

BIOE464 **Introduction to Computational Molecular Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120, BIOE241, MATH246, BIOE232, and BIOE372; or permission of ENGR-Fischell Department of Bioengineering department. Restriction: Permission of ENGR-Fischell Department of Bioengineering department. Credit only granted for: BIOE489N or BIOE464. Formerly: BIOE489N.

Designed to introduce students to the principles, methods, and software used for simulation and modeling of macromolecules of biological interest such as proteins, lipids, and polysaccharides. Along with experiment and theory, computational modeling provides new tools for analysis, explanation and prediction. The course is also useful for students who plan to use experimental techniques as their primary approach, but who will employ computational modeling as a tool to obtain integrative understanding of complex systems. Finally, the course should be valuable as an introductory overview for students planning to conduct their thesis research in computational modeling of biological systems. Class topics: Basic statistical thermodynamics, Force fields, Molecular dynamics/ monte carlo methods, Conformational analysis, Fluctuations & transport properties, Free-energy calculations, Multiscale modeling.

0101	Silvina Matysiak TuTh 9:30am - 10:45am	Seats (Total: 20) AJC 2119	

BIOE485 **Capstone Design I: Entrepreneurship, Regulatory Issues, and Ethics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 21 credits in BIOE courses. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and senior standing; and must be in Engineering: Bioengineering program. Credit only granted for: BIOE485 or ENBE485. Formerly: ENBE485.

This is the first part of a two-semester senior capstone design course which covers principles involved in engineering design, design approaches, economics of design, ethics in engineering, and patent regulations. It also helps students learn team work and write design project proposals under the mentorship of a faculty advisor.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Yang Tao MW 2:00pm - 3:15pm	Seats (Total: 130) EGR 1202

BIOE489C **Special Topics in Bioengineering; Mechanical Design of Medical Devices**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120, BIOE121, BIOE241, BIOE437. Restriction: Permission of department.

0101	Frank Modica W 6:00pm - 9:00pm	Seats (Total: 20) KEB 2111

BIOE489D **Special Topics in Bioengineering; Quantitative Biotechnology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: MATH246, BIOE371, and BIOE340 or Permission of the Fischell Department of Bioengineering. Provides a quantitative understanding of the science behind current technologies in the biotechnology and biotherapeuticsindustries. It provides the molecular basis for their function as well as their manufacture. The new RNA modalities for vaccine therapies, the efficacy of monoclonal antibody therapeutics, the molecular signaling dialogue that guides microbial consortia are among the topics that rely on fundamental chemical biology principles that can be mathematically characterized enabling quantitative insight.

0101	William Bentley TuTh 9:30am - 10:45am	Seats (Total: 15) AJC 2121

BIOE489G **Special Topics in Bioengineering; Immunoengineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120, BIOE121, BIOE241, and MATH246 or Permission of the Fischell Department of Bioengineering. Immunoengineering harnesses immunological functions to design treatments for various diseases including cancer. We will explore how engineering technologies have been used to study and modulate immune functions, techniques used in immunology and immune engineering, and new developments in the field. The course will largely focus on current literature in immune engineering topics.

0101	Katharina Maisel	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	AJC 2132

BIOE489H **Special Topics in Bioengineering; Bioengineering Honors Seminar**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Restricted to students in the BIOE Honors Proram.

0101	Gregg Duncan	Seats (Total: 30)
	M 3:30pm - 4:30pm	AJC 2134

BIOE489T **Special Topics in Bioengineering; Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploring a variety of topics with Bioengineering.

Prerequisite: BIOE120. Credit only granted for: BIOE489T or CHBE47

0101	Deborah Goldberg	Seats (Total: 10)
	MW 1:00pm - 2:15pm	ATL 1114

BIOE605 **BIOE Graduate Studies I**

(Perm req)

Credits: 1

Grading Method: Regular

Restriction: Must be in ENGR: PhD Only-Bioengineering (Doctoral) program.

Introduction to the bioengineering graduate program. Students gain exposure to departmental research through lab rotation and to current research in the field through seminar. Students will also gain preparation and guidance on other first-year academic requirements.

0101	Jose Aranda-Espinoza	Seats (Total: 30)	
	F 10:00am - 10:50am	AJC 2132	
	F 9:00am - 9:50am	AJC 2132	Discussion

BIOE608 **Bioengineering Seminar Series**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

A variety of topics related to Bioengineering will be presented in weekly seminars.

For BIOE majors only.

0101	Huang Chiao Huang	Seats (Total: 40)
	F 9:00am - 9:50am	AJC 2121

BIOE610 **Mathematical Methods in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering.

From diffusion problems to light-matter interactions, students will learn basic skills needed to create mathematical models in bioengineering. Students will first be exposed to simplified problems in analytical form, and then more complex problems with the help of computer software programs.

0101	Jose Aranda-Espinoza	Seats (Total: 30)
	TuTh 8:00am - 9:15am	AJC 2132

BIOE612 **Physiological Evaluation of Bioengineering Designs**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department.

Bioengineering designs of biomaterials, biomedical devices, imaging and drug delivery agents, tissue engineering, prosthesis (among others), offer the opportunity to improve health care. This course is aimed at providing knowledge to lead bioengineering designs on the basis of biocompatibility and to provide tools to assess their patho-physiological impact in biological systems.

0101	Huang Chiao Huang	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	AJC 2132

BIOE658G **Special Topics in Bioengineering (M.Eng.); Genome Editing and Synthetic Biology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department The course will introduce students to the field of genome editing and synthetic biology. After reviewing basic molecular biology concepts necessary to engage with the material, the course will explore the relevant cutting edge technologies via in-depth analysis of scientific papers, both historically important and recent landmark reports.

BI01	Jarred Callura	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE658M **Special Topics in Bioengineering (M.Eng.); Applied Mathematics in Bioengineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in Bioengineering.

For Master of Engineering students only or permission of department. Solving bioengineering problems by using a variety of mathematical topics such as ordinary and partial differential equations, linear algebra, modeling, and statistics.

0101	Austin Tapp	Seats (Total: 15)
	MW 5:30pm - 6:45pm	AJC 2132
BI01	Austin Tapp	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE658R **Special Topics in Bioengineering (M.Eng.); Regulatory Affairs in Medical Product Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special topics in Bioengineering.

For Master of Engineering students only or with permission of department. Credit will only be granted for ANTH627 or BIOE658R. An introductory course on regulations associated with the development and production of medical devices and pharmaceuticals.

0101	Valerie Merkle	Seats (Total: 15)
	TuTh 5:00pm - 6:15pm	AJC 2132
BI01	Valerie Merkle	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

BIOE689 **Special Topics in Bioengineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research Oriented Individual Instruction course.

Contact department for information to register for this course.

BIOE689D **Special Topics in Bioengineering; Quantitative Biotechnology**

(Perm req)

Credits: 3 Grading Method: Regular

Research Oriented Individual Instruction course.

0101	William Bentley	Seats (Total: 5)
	TuTh 9:30am - 10:45am	AJC 2121

BIOE689K **Special Topics in Bioengineering; Cardiovascular Engineering**

(Perm req)

Credits: 3 Grading Method: Regular

Research Oriented Individual Instruction course.

An overview of engineering applications in the cardiovascular system. Covers cardiovascular anatomy, physiology and pathophysiology in the context of cell and tissue mechanics, fluid mechanics, thermodynamics, biotransport, neurovascular coupling, and imaging. Includes design of cardiovascular devices, sensors, biomaterials, and tissue engineered constructs.

0101	Alisa Clyne	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	AJC 2121

BIOE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOE898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIOE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL Biology Fall 2022

BIOL608A **Biology Seminar; Writing on NSF Fellowship Proposal**

(Perm req)

Credits: 1 Grading Method: Regular

0101	Anahi Espindola, Karen Carleton	Seats (Total: 14)
	Meets September 1, 2022 - October 13, 2022	
	Th 12:00pm - 2:00pm	BPS 1208

BIOL608K **Biology Seminar; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Credits: 2 Grading Method: Regular

Cross-listed with CBMG699K, CHEM608K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)	
	W 11:00am - 12:40pm	BPS 1208	

BIOL609 **Special Problems in Biology**

Credits: 1-6 Grading Method: Regular

One seminar per week for each subject selected: A-Cell Biology; B-Developmental Biology; C-Estuarine and Marine Biology; D-Genetics; E-Parasitology; F-Physiology; G-Systematics and Evolutionary Biology; I-Behavior; J-General; K-Endocrinology; L-Ecology.

Contact department for information to register for this course.

BIOL667 **Mathematical Biology**

Credits: 4 Grading Method: Regular, Sat-Fail

Credit only granted for: BIOL667 or ZOOL625. Formerly: ZOOL625.

Mathematical methods of analyzing deterministic and stochastic biological processes from a variety of areas (including population and evolutionary biology, neurobiology, physiology, and morphogenesis). Qualitative aspects of dynamical systems which are usually given as difference or differential equations. The computer program Mathematica will be used to obtain the numerical solutions of these equations.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BIOL671 **Molecular Evolution**

Credits: 3 Grading Method: Regular

Credit only granted for: BIOL671 or ZOOL645. Formerly: ZOOL645.

Basic foundations through advanced concepts in molecular evolution, including patterns and processes of DNA sequence variation, transposable element dynamics, gene duplication and loss, and genome organization. Relevant concepts from genetics, biochemistry, and phylogenetics also will be covered.

0101	Michael Cummings	Seats (Total: 10)	
	Class time/details on ELMs	ONLINE	

BIOL704 **Cell Biology from a Biophysical Perspective**

Credits: 3 Grading Method: Regular

Recommended: BSCI330, PHYS121, and PHYS122. Cross-listed with: BIPH704. Jointly offered with: BSCI404. Credit only granted for: BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BIOL708O.

An approach to cell biology by focusing on mechanisms and unifying paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think quantitatively and mechanistically.

0101	Sergei Sukharev TuTh 3:30pm - 4:45pm	Seats (Total: 9) PLS 1113	

BIOL708B **Advanced Topics in Biology; Animal Behavior**

Credits: 3 Grading Method: Regular

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Gerald Borgia MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 1) ONLINE PLS 1162	Discussion
0102	Gerald Borgia MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 1) ONLINE PLS 1162	Discussion

BIOL708Q **Advanced Topics in Biology; Neurobiology of Chemosensory Systems**

Credits: 3 Grading Method: Regular

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Ricardo Araneda MW 2:00pm - 3:15pm	Seats (Total: 7) BPS 1208	

BIOL708X **Advanced Topics in Biology; Sexual Selection in Nature**

Credits: 3 Grading Method: Regular

Lectures, experimental courses and other special instructions in various zoological subjects.

0101	Heidi Fisher TuTh 9:30am - 10:45am	Seats (Total: 5) ONLINE	

BIOL709C **Selected Advanced Topics in Biology; Population and Evolutionary Genetics**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses and other special instructions in various biological subjects.

0101	Philip Johnson MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 4) HBK 0123 PLS 1121	Lab

BIOL709W **Selected Advanced Topics in Biology; Molecular Neuroethology**

Credits: 3 Grading Method: Regular, Audit

Lectures, experimental courses and other special instructions in various biological subjects.

0101	Scott Juntti	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	BPS 0283

BIOL721 **Mathematical Population Biology**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: AMSC721. Credit only granted for: AMSC721 or BIOL721. Additional information: Open to advanced undergraduates by permission of instructor.

The mathematical modeling of real-life phenomena in the natural, engineering, and social sciences often involve having to solve systems of difference or differential equations. These systems are inherently complex, owing to their (typically) high dimensionality and nonlinearity. Hence, their exact solutions are difficult (if at all feasible) to obtain. Consequently, these systems are generally studied using a combination of asymptotic analysis and numerical discretization approaches. This course will cover a broad spectrum of techniques, theories and tools for modeling and analysing real-life phenomena arising in population biology, with emphasis on the study and asymptotic analysis of general classes of unstructured (single species discrete-time and continuous-time models, interacting populations etc.) and structured (spatially-structured, age-structured, sex-structured) population biology models arising in ecology and epidemiology.

0101	Abba Gumel	Seats (Total: 20)
	TuTh 9:30am - 10:45am	BPS 1234

BIOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIOM Biometrics Fall 2022

BIOM301 **Introduction to Biometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: MATH113 or MATH115. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

0101	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 1:00pm - 1:50pm	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0102	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 2:00pm - 2:50pm	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0103	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 3:00pm - 3:50pm	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0104	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0105	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0106	Christine Hakenkamp TuTh 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 28) ARM 0126 ANS 0473	Discussion
0107	Christine Hakenkamp TuTh 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 28) ARM 0126 ANS 0473	Discussion

BIOM405 **Computer Applications in Biometrics**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An introduction to computer applications for data analysis. This is equivalent to the computer lab of 601 and is required for students that have taken BIOM301 and BIOM402 and wish to go directly into BIOM602.

0101	Li Ma Class time/details on ELMs	Seats (Total: 5) ONLINE	

BIOM601 **Biostatistics I**

Credits: 4 Grading Method: Regular, Audit

Prerequisite: BIOM301 or STAT464; or students who have taken courses with comparable content may contact the department. Credit only granted for: BIOM401 or BIOM601.

Estimation and hypothesis testing, t tests, one and two way analysis of variance, regression, analysis of frequency data. Lecture will emphasize uses and limitations of these methods in biology, while the laboratory will emphasize the use of statistical analysis software for the analysis of biological data.

0101	Li Ma TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:00pm	Seats (Total: 25) ANS 0408 ANS 0473	 Lab
0102	Li Ma TuTh 12:30pm - 1:45pm W 9:00am - 11:00am	Seats (Total: 25) ANS 0408 ANS 0473	 Lab
0103	Li Ma TuTh 12:30pm - 1:45pm Th 2:00pm - 4:00pm	Seats (Total: 25) ANS 0408 ANS 0473	 Lab
0104	Li Ma TuTh 12:30pm - 1:45pm Th 2:00pm - 4:00pm	Seats (Total: 25) ANS 0408 ONLINE	 Lab

BIOM688A **Topics in Biometrics; Consulting Experience in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

Contact department for information to register for this course.

BIOM688E **Topics in Biometrics; Statistical Genomics**

Credits: 3 Grading Method: Regular, Audit

Advanced topics of current interest in various areas of biometrics. Credit assigned will depend on lecture and/or laboratory time scheduled and organization of the course.

0101	Mohamed Salem, Jiuzhou Song, Li Ma	Seats (Total: 15)
	MW 9:00am - 10:15am	ANS 0402

BIOM698 **Special Problems in Biometrics**

Credits: 1-3 Grading Method: Regular, Audit

Individual study of a particular topic in biostatistics or biomathematics.

Contact department for information to register for this course.

BIPH Biophysics Fall 2022

BIPH698L **Biophysics Seminar; Biophysics**

Credits: 1 Grading Method: Regular, Audit

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

BIPH699 **Research in Biophysics**

Credits: 2 Grading Method: Regular

Supervised research in biophysics laboratories. Rotations through several laboratories prior to a choice of laboratory for a research assistantship.

Contact department for information to register for this course.

BIPH704 **Cell Biology from a Biophysical Perspective**

Credits: 3 Grading Method: Regular

Recommended: BSCI330, PHYS121, and PHYS122. Cross-listed with: BIOL704. Jointly offered with: BSCI404. Credit only granted for: BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BIOL708O.

An approach to cell biology by focusing on mechanisms and unifying paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think quantitatively and mechanistically.

0101	Sergei Sukharev	Seats (Total: 9)
	TuTh 3:30pm - 4:45pm	PLS 1113

BIPH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BIPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BIPH899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI Biological Sciences Fall 2022

BISI610 **Introduction to Behavior, Evolution, Ecology, & Systematics**

Credits: 2 Grading Method: Regular, Audit

Restriction: Must be in the Behavior, Evolution, Ecology, and Systematics (BEES) concentration area of the Biological Sciences program; or permission of the instructor. Credit only granted for: BEES608A, BIOL608D or BISI610. Formerly: BEES608A.

This literature-based course serves as an intellectual orientation for new (i.e. first- and second-year) doctoral students in the Behavior, Evolution, Ecology, and Systematics (BEES) concentration area of the Biological Sciences (BISI) Graduate Program.

0101	Karen Carleton	Seats (Total: 15)
	W 4:00pm - 6:00pm	BPS 1208

BISI620 **Bioinformatics and Genomics**

Credits: 2 Grading Method: Regular, Audit

Credit only granted for: CBMG688Y or BISI620. Formerly: CBMG688Y.

Provides an overview of some major topics and research areas bioinformatics and genomics, and includes material from basic foundations through advanced concepts.

0101	Michael Cummings, Najib El-Sayed	Seats (Total: 24)
	Meets August 29, 2022 - October 14, 2022	
	TuTh 9:00am - 10:50am	IRB 3137

BISI701 **Teaching & Professional Development in Biology**

Credits: 1 Grading Method: Sat-Fail

Cross-listed with: ENTM701. Credit only granted for: ENTM701, BISI688Z, CBMG688Z, or BIOL701. Formerly: BISI688Z, CBMG688Z, BIOL701. Additional information: Priority in enrollment will be given to students in the BISI Graduate Program.

Provides graduate students in the biological sciences with the foundational knowledge to become better teaching assistants and gives them an introduction into the skills and tools that they need to develop as professional scientists and educators.

0101	Wade Winkler	Seats (Total: 30)
	Tu 6:00pm - 8:00pm	BPS 0283

BISI712 **Responsible Conduct of Research for Biologists**

Credits: 1 Grading Method: Regular

Credit only granted for: BISI712, BISI688B, or CBMG688B. Formerly: BISI688B and CBMG688B.

An exploration of the ethical dimensions associated with the responsible conduct of scientific research focusing on providing students with practical insights into the existing norms and expectations of working scientists.

0101	Gerald Wilkinson **Meets August 29, 2022 - October 17, 2022** M 4:00pm - 6:05pm	Seats (Total: 20) PLS 1168
0201	Thomas Porter **Meets October 17, 2022 - December 12, 2022** Tu 4:00pm - 6:00pm	Seats (Total: 15) BPS 1234
0301	George Belov **Meets October 17, 2022 - December 12, 2022** M 4:00pm - 6:00pm	Seats (Total: 15) BRB 3101

BISI799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BISI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Restriction: Must be in Biological Sciences (Doctoral) program.

Contact department for information to register for this course.

BISI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BMGT Business and Management Fall 2022

BMGT099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

Contact department for information to register for this course.

BMGT110 **Introduction to the Business Value Chain**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

0101	Jeff Miller TuTh 12:30pm - 1:45pm	Seats (Total: 250) VMH 1524

BMGT110F **Introduction to the Business Value Chain**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE

Restricted to Smith School's Smith Start (FPFF) students.

FP01	Justin Reyna MW 8:00am - 9:15am	Seats (Total: 37) VMH 1336
FP02	Justin Reyna MW 9:30am - 10:45am	Seats (Total: 37) VMH 1336
FP03	Leland Gardner MW 12:30pm - 1:45pm	Seats (Total: 37) VMH 1311
FP04	Jeffrey Mund Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP05	Jeffrey Mund Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP06	Jeffrey Mund Tu 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP07	Jeffrey Mund Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE

FP08	Jeffrey Mund Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE
FP09	Jeffrey Mund Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 37) VMH 1311 ONLINE

BMGT110L **Introduction to the Business Value Chain**

(Perm req)

Credits: 3 Grading Method: Regular CORE: IE

Students are provided with an introduction to the business value chain with an emphasis on inter-organizational and intra-organizational coordination of core business processes. Emphasis is on cross-functional integration and the efficient and effective management of core processes with an emphasis on marketing, operations and supply chain management.

For Smith Business Leadership Fellows only.

FP01	Jon Crocker MW 9:30am - 10:45am	Seats (Total: 40) VMH 1311
FP02	Jon Crocker MW 11:00am - 12:15pm	Seats (Total: 40) VMH 1311
FP03	Jon Crocker TuTh 2:00pm - 3:15pm	Seats (Total: 40) VMH 1311

BMGT160 **The Intentional Self**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, SCIS

Credit only granted for: BMGT160, BMGT198A, or BMGT198B.

As you navigate adulthood, you will constantly be making decisions that impact your personal and professional well being and success. Making these life choices with intention and a perspective of your whole self will increase your life satisfaction. In this course, you will examine who have been, who you are, and who you want to become. We will be exploring the six pillars of the whole self including purpose/character, relationships, wellness, community, prosperity, and nature and creating a vision for your future self.

Click here for more information about the course.

0101	Sarah Wolek TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1314

0201	Sarah Wolek TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 1314	
0301	Sarah Wolek TuTh 9:30am - 10:45am	Seats (Total: 40) VMH 1314	

BMGT190H **Introduction to Design and Quality**

Credits: 4 Grading Method: Regular General Education: DSSP

Restriction: Must be in the Quest program. Cross-listed with: ENES190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

Restricted to Quest Program students.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): Click here for more information on the Fearless Ideas Courses.

0101	Pamela Armstrong TuTh 12:30pm - 1:45pm Tu 6:00pm - 7:50pm	Seats (Total: 45) TWS 1310 TWS 1310	 Discussion

BMGT198D **Special Topics in Business and Management; The Future of You, Business and Society**

(Perm req)

Credits: 3 Grading Method: Regular

Introductory special topics in business and management.

For Smith Business Leadership Fellows only.

FP01	Rajshree Agarwal Th 5:30pm - 6:50pm Tu 5:30pm - 6:50pm	Seats (Total: 37) VMH 1411 VMH 1212	
FP02	Victor Mullins Th 5:30pm - 6:50pm Tu 5:30pm - 6:50pm	Seats (Total: 37) VMH 1415 VMH 1212	
FP03	Christine Schaaf Th 5:30pm - 6:50pm Tu 5:30pm - 6:50pm	Seats (Total: 37) VMH 1418 VMH 1212	

BMGT210 **Foundations of Accounting for Non Business Majors**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT221; and must not be in a major in the R.H. Smith School of Business. Credit only granted for: (BMGT220 and BMGT221) or BMGT210. Additional information: Does not apply to a Smith School degree. Students pursuing a Smith School minor who have completed both BMGT220 and BMGT221 may substitute these courses for BMGT210. Credit will not be given for both BMGT210 and the combination of BMGT220 and BMGT221.

Provides an understanding of the common statements that report a company's profitability and financial health, and are useful to all economic agents who are engaged with the firm. Students will also recognize and understand managerial accounting as a system for accumulating and modeling information to support decision-making.

Restricted to General Business minors.

0101	Darlene Dennison Class time/details on ELMs	Seats (Total: 153) ONLINE	

BMGT220 Principles of Accounting I

Credits: 3 Grading Method: Regular

Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

Restricted to all students with 24 credit hours completed.

0101	Progyan Basu MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 40) VMH 1212 VMH 1202	 Discussion
0102	Progyan Basu MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 40) VMH 1212 VMH 1202	 Discussion
0103	Progyan Basu MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 40) VMH 1212 VMH 1202	 Discussion
0104	Progyan Basu MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 40) VMH 1212 VMH 1202	 Discussion
0201	Progyan Basu MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 40) VMH 1212 VMH 1307	 Discussion

0202	Progyan Basu MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 40) VMH 1212 VMH 1307	Discussion
0203	Progyan Basu MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 40) VMH 1212 VMH 1307	Discussion
0204	Progyan Basu MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 40) VMH 1212 VMH 1307	Discussion
0301	Progyan Basu MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 40) VMH 1212 VMH 1206	Discussion
0302	Progyan Basu MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 40) VMH 1212 VMH 1206	Discussion
0303	Progyan Basu MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 40) VMH 1212 VMH 1206	Discussion
0304	Progyan Basu MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 40) VMH 1212 VMH 1206	Discussion

BMGT221 Principles of Accounting II

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Restricted to students with 24 credit hours completed.

0101	Michael McMillan TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 40) VMH 1212 VMH 1418	Discussion

0102	Michael McMillan TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 40) VMH 1212 VMH 1418	 Discussion
0103	Michael McMillan TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 40) VMH 1212 VMH 1418	 Discussion
0104	Michael McMillan TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 40) VMH 1212 VMH 1418	 Discussion
0201	Michael McMillan TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 40) VMH 1212 VMH 1415	 Discussion
0202	Michael McMillan TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 40) VMH 1212 VMH 1415	 Discussion
0203	Michael McMillan TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 40) VMH 1212 VMH 1415	 Discussion
0204	Michael McMillan TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 40) VMH 1212 VMH 1415	 Discussion

BMGT221H Principles of Accounting II

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220.

Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

Course restricted to University Honors Students with 24 credit hours completed.

0101	Samuel Handwerger TuTh 12:30pm - 1:45pm	Seats (Total: 39) VMH 1411

BMGT230 Business Statistics

Credits: 3 Grading Method: Regular General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0101	Erich Studer-Ellis MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 24) VMH 1524 VMH 1311	 Discussion
0103	Erich Studer-Ellis MW 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) VMH 1524 VMH 1311	 Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 33) VMH 1524 VMH 1311	 Discussion
0106	Erich Studer-Ellis MW 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 35) VMH 1524 VMH 1311	 Discussion
0201	Erich Studer-Ellis MW 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion

0202	Erich Studer-Ellis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 22) VMH 1524 VMH 1411	 Discussion
0204	Erich Studer-Ellis MW 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 35) VMH 1524 VMH 1411	 Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 31) VMH 1524 VMH 1411	 Discussion
0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 33) VMH 1524 VMH 1411	 Discussion
0301	Erich Studer-Ellis MW 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 35) VMH 1524 VMH 1314	 Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 26) VMH 1524 VMH 1314	 Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 26) VMH 1524 VMH 1314	 Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 27) VMH 1524 VMH 1314	 Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 28) VMH 1524 VMH 1314	 Discussion

0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 33) VMH 1524 VMH 1314	 Discussion
FC01	Radu Lazar MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 32) HBK 1108	

BMGT230B **Business Statistics**

Credits: 3 Grading Method: Regular General Education: FSAR

Prerequisite: MATH113 or MATH115; or must have math eligibility of MATH120 or higher. Restriction: Must not have completed ENCE302, ENME392, STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and management.

Restricted to BMGT majors. Where a BMGT exam conflicts with a regularly scheduled class, the student will be provided with a makeup exam.

0102	Erich Studer-Ellis MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 11) VMH 1524 VMH 1311	 Discussion
0104	Erich Studer-Ellis MW 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 5) VMH 1524 VMH 1311	 Discussion
0105	Erich Studer-Ellis MW 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 2) VMH 1524 VMH 1311	 Discussion
0203	Erich Studer-Ellis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 13) VMH 1524 VMH 1411	 Discussion
0205	Erich Studer-Ellis MW 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 4) VMH 1524 VMH 1411	 Discussion

0206	Erich Studer-Ellis MW 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 2) VMH 1524 VMH 1411	Discussion
0302	Erich Studer-Ellis MW 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 9) VMH 1524 VMH 1314	Discussion
0303	Erich Studer-Ellis MW 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 9) VMH 1524 VMH 1314	Discussion
0304	Erich Studer-Ellis MW 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 8) VMH 1524 VMH 1314	Discussion
0305	Erich Studer-Ellis MW 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 7) VMH 1524 VMH 1314	Discussion
0306	Erich Studer-Ellis MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 2) VMH 1524 VMH 1314	Discussion

BMGT289A **Social Enterprise: Changing the World through Innovation and Transformative Action**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSSP, SCIS

In this course, students will hear from real-life social entrepreneurs, explore current day social issues of sustainability, climate change, leadership, disruptive innovations, and create or blueprint business plans to generate positive social change. This class will focus on innovative thinking skills, personal narratives, and social interaction strategies and plans.

0101	Le-Marie Thompson W 5:00pm - 7:40pm	Seats (Total: 60) TWS 0320

BMGT289D **Frauds, Scams, and Thefts: What, How and Why?**

Credits: 3 | Grading Method: Regular | General Education: DSSP, SCIS

The primary objective of this course is for students to gain a conceptual understanding of how fraud occurs, how it can be prevented, and how fraud can be detected through practical application of skills and tools. This course provides general background relating to fraud (e.g. history, prevalence, psychology), and it delves into the myriad types of fraud, scams and theft. This course also examines the trends in fraud detection and investigation; and introduces and explores with students the constant tension between public order and civil liberties in white collar crime, forensics, and hacking.

0101	Samuel Handwerger MW 3:30pm - 4:45pm	Seats (Total: 60) IRB 1116
0201	Samuel Handwerger MW 5:00pm - 6:15pm	Seats (Total: 60) IRB 1116

BMGT289E **Entrepreneurial Thinking for Non-Business Majors: How Not to Miss Great Opportunities Your Life Throws at You**

Credits: 3 | Grading Method: Regular | CORE: IE | General Education: DSSP, SCIS

In this course, students learn how to analyze the world around them and then notice and define new trends, emerging problems, impending gaps, and how to turn these into exciting opportunities by providing creative solutions. Students will have a chance to not only sharpen their critical thinking skills, but also learn how to take initiative, develop a working solution, identify and resolve conflicts, and be confident and persistent, yet flexible enough to respond to changes. Student teams identify a compelling problem in present day life and then propose a creative solution taking into account possible difficulties in implementation. In addition, students will also be given problems on a much smaller scale and asked to create and present a workable solution. Students will be exposed to how a visionary's mind works and the creative solution process. In addition, students will also learn how entrepreneurial thinking can improve their day-to-day life.

0101	Oliver Schlake MW 2:00pm - 3:15pm	Seats (Total: 60) HJP 2242
0201	Oliver Schlake MW 3:30pm - 4:45pm	Seats (Total: 60) HJP 2242

BMGT289I **Why Good Managers Make Bad Decisions**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: DSSP, SCIS

This course provides an overview of the concepts, approaches, and vocabulary of evidence-based management (EBM) and provides an understanding of how experts in many disciplines can employ evidenced based decision making. EBM is an emerging movement in business to explicitly use the current best information in management decision making with special emphasis on relevant scientific findings and unbiased organizational facts. The course stresses how individuals practicing EBM learn how to rethink their approaches to data and knowledge in order to make more effective decisions.

Why do smart managers make flawed decisions? Why do managers keep believing they have made the right choice, even with disastrous results staring them in the face? Why Good Managers Make Bad Decisions will address how evidence-based management and other decisionmaking tools can be used to uncover hidden assumptions in the corner offices of great corporations.

0101	Jeff Miller MW 3:30pm - 4:45pm	Seats (Total: 240) SKN 0200

BMGT289J **Exploring Leadership: Are Hidden Forces at Work?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSSP, SCIS

Addresses key dimensions of leadership behavior: personal integrity, self-awareness, vision, emotional intelligence, personality, communication, organizational competence, and empowering people and teams. The course invites students on a journey of professional exploration, understanding and development--with the explicit goal of enabling students to embark on a path of personal leadership development. To achieve this goal, the course offers an extensive examination of leadership in organizations and provides students with a set of experiences that are designed to enhance their self-awareness and capacity for effective leadership. Opportunities are provided through assessments, simulations, group exercises, discussion, case studies and readings to develop leadership skills and the capability to motivate, collaborate, negotiate, manage group dynamics, and communicate effectively. Through the academic study of leadership, self-assessments, practice and reflection, students learn the strengths and limitations of their own leadership style that will assist them in becoming a more effective leader.

Restriction: Must be enrolled in College Park Scholars' Business, Society and the Economy (CPBE) program.

0101	Oliver Schlake MW 9:30am - 10:45am	Seats (Total: 45) CCC 1205
0201	Oliver Schlake MW 11:00am - 12:15pm	Seats (Total: 45) CCC 1205

BMGT298A **Special Topics in Business and Management; Sports and Entertainment Industry Management**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Introductory special topics in business and management.

Restricted to BMGT majors.

0101	K J Hughes Th 3:30pm - 6:10pm	Seats (Total: 48) ESJ 2309

BMGT301 **Introduction to Information Systems**

Credits: 3 | Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors with 53 credits completed.

0101	Zeinab Karake MW 12:30pm - 1:45pm	Seats (Total: 65) VMH 1412
0201	Zeinab Karake MW 3:30pm - 4:45pm	Seats (Total: 65) VMH 1330
0301	Lawrence Aikins MW 5:00pm - 6:15pm	Seats (Total: 65) VMH 1330
0401	Paul Shapiro TuTh 12:30pm - 1:45pm	Seats (Total: 65) VMH 1412
0501	Paul Shapiro TuTh 3:30pm - 4:45pm	Seats (Total: 60) VMH 1303
0601	Lawrence Aikins TuTh 5:00pm - 6:15pm	Seats (Total: 65) VMH 1412
0701	Paul Shapiro TuTh 11:00am - 12:15pm	Seats (Total: 65) VMH 1412

BMGT301F **Introduction to Information Systems**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Additional information: CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMSC, must complete BMGT301 for their BMGT degree.

Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analyzing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

Restricted to second year students in the Smith School's Smith Start program (FPFF).

FP01	Zeinab Karake MW 9:30am - 10:45am	Seats (Total: 65) VMH 1412
FP02	Zeinab Karake MW 11:00am - 12:15pm	Seats (Total: 65) VMH 1412

BMGT302 Essential Programming Skills for Business Analytics

Credits: 3 Grading Method: Regular

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to Information Systems majors with 45 credits completed and other BMGT majors and Business Analytics minors with 53 credits completed. Not open to Computer Science.

0101	John Bono TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 2203
0201	John Bono TuTh 9:30am - 10:45am	Seats (Total: 35) VMH 2203
0301	John Bono TuTh 12:30pm - 1:45pm	Seats (Total: 35) VMH 2203

BMGT302F Essential Programming Skills for Business Analytics

Credits: 3 Grading Method: Regular

Prerequisite: BMGT301; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business; and must not be in the Computer Science major.

The course introduces structured and object-oriented programming and its applications in business functions and analytics. Students will apply problem-solving skills to create software solutions using programming logic and data structures. The course especially emphasizes learning by doing exercises using a modern, high-level programming language and industry standard software.

Restricted to students in the Smith School's iTBT Fellows program. The specific programming language used in the course is subject to change as we tailor the course content to industry standards.

FP01	Peng Huang	Seats (Total: 25)	
	TuTh 11:00am - 12:15pm Th 5:00pm - 5:50pm	VMH 2203 VMH 3505	 Lab

BMGT310 Intermediate Accounting I

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

0101	Emanuel Zur	Seats (Total: 38)
	TuTh 11:00am - 12:15pm	VMH 1518
	Restricted to Accounting and Finance majors with 53 credit hours completed.	
0201	Emanuel Zur	Seats (Total: 38)
	TuTh 9:30am - 10:45am	VMH 1518
	Restricted to Accounting and Finance majors with 53 credit hours completed.	
0301	Sean Cao	Seats (Total: 38)
	MW 12:30pm - 1:45pm	VMH 1307
	Restricted to Accounting and Finance majors with 53 credit hours completed.	
SG91	Lu Zhang	Seats (Total: 45)
	TuTh 9:30am - 10:45am	BLD2 3022
	Restricted to Junior BMGT-Shady Grove students majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT311 Intermediate Accounting II

Credits: 3 Grading Method: Regular

Prerequisite: BMGT310.

Continuation of BMGT310.

Restricted to Accounting majors with 60 credit hours completed.

0101	Patrick McNamee TuTh 2:00pm - 3:15pm	Seats (Total: 35) VMH 1411
0201	Patrick McNamee TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 1411

BMGT313 Financial Statement Analysis

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Accounting and Finance majors with 53 credits completed.

0101	Brent Solomon TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1206
0201	Brent Solomon TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1206

BMGT313F Financial Statement Analysis

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. Involves understanding and using the information that financial statements are communicating to users.

Restricted to Emerging CFOs (FPEC).

FP01	Brent Solomon TuTh 2:00pm - 3:15pm	Seats (Total: 35) VMH 1314

BMGT321 Managerial Accounting

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

A study of the basic concepts of product costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

0101	Lu Zhang MW 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1314
0201	Martin Loeb TuTh 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 40) VMH 1314
SG91	Lu Zhang TuTh 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove Seniors majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3022

BMGT323 Taxation of Individuals

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

Restricted to Accounting majors with 53 credit hours completed.

0101	Jeffrey Milton MW 3:30pm - 4:45pm	Seats (Total: 40) VMH 1411
0201	Jeffrey Milton TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1311

BMGT326 Accounting Systems

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221; and (BMGT201 or BMGT301).

A study of accounting systems and computer and communications technology.

Restricted to Accounting majors with 60 credit hours completed.

0101	James McKinney MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1518
0201	Lei Zhou MW 9:30am - 10:45am	Seats (Total: 35) VMH 1314

BMGT332 Quantitative Models for Management Decisions

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department.

The aim of this course is to introduce management science techniques for informed decision-making that can be applied in spreadsheet models to assist in the decision-analysis process. Models include Linear Programming, Transportation and Assignment problems, network flow models, Integer and non-linear programming, Simulation and Decision Trees.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1524
0201	Maria Bardossy TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1415
0301	Kazim Ruhi TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1524
0401	Kazim Ruhi TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1524

BMGT340 Business Finance

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

0101	Michael Padhi MW 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1333

0201	Michael Padhi MW 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1333
0301	Xiao Zhang MW 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 73) VMH 1333
0401	Michael Padhi TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1528
0501	Michael Padhi TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1528
0601	Michael Padhi TuTh 12:30pm - 1:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1528
0701	Xiao Zhang MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 75) VMH 1333
SG91	James Seward TuTh 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD2 2032
SG92	James Seward TuTh 12:30pm - 1:45pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD2 2032

BMGT340F Business Finance

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to students in the Smith School's Sophomore Finance Fellows Program.

FP01	Richmond Mathews MW 2:00pm - 3:15pm	Seats (Total: 35) VMH 1311

BMGT340N **Business Finance**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220; and (BMGT231 or BMGT230).

Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

Restricted to agricultural and resource economics majors (0111C) with 53 credit hours completed.

0301	Xiao Zhang MW 2:00pm - 3:15pm	Seats (Total: 2) VMH 1330

BMGT341 **Financial Markets**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in BMGT340. Formerly: BMGT498G.

Shows the interconnectedness of the markets. The role of the Central bank and monetary policy is included in this context. Students develop an understanding of: (i) the determination of interest rates; (ii) financial instruments, markets and institutions; (iii) the impact of monetary policy on institutions; and (iv) how financial innovations create markets.

Restricted to Finance majors with 60 credit hours completed.

0101	Julie Pavlovsky TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1418
0201	Julie Pavlovsky TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1418
0301	Julie Pavlovsky TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1418

BMGT342F **Wall Street Finance**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Credit only granted for: BMGT448F or BMGT342. Formerly: BMGT448F.

Using concepts and tools of finance, students will examine a wide range of business problems and explore possible solutions. The course is designed to improve a student's problem solving capabilities, business writing and communication skills, teamwork, and planning skills. Students will also gain experience in analyzing issues frequently faced by financial decision-makers.

Restricted to students in the Smith School's Wall Street Fellows Program.

FP01	Julie Pavlovsky TuTh 3:30pm - 4:45pm	Seats (Total: 35) VMH 1418

BMGT343 Investments

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Credit only granted for: BMGT343 or ECON435. Additional information: This course cannot be used to fulfill any requirements for majors in Economics.

An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

Restricted to Finance majors with 60 credit hours completed.

0101	Yueyang Han MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1206
0201	Kenneth Fuller TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1307
0301	Kenneth Fuller TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1307
0401	Yueyang Han MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1206
0501	Ping McLemore MW 5:00pm - 6:15pm	Seats (Total: 40) VMH 1314

BMGT345 Foundations of Financial Management for Non Business Majors

Credits: 3 Grading Method: Regular

Prerequisite: BMGT210 or BMGT220. Restriction: Must not have completed BMGT340; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT345 or BMGT340. Additional information: Course does not apply to a Smith School degree. BMGT340 may substitute for BMGT345.

Provides students an overview of financial management. Students will understand how a business allocates financial resources in an uncertain environment to maximize shareholder value. In addition students will learn the following: how to apply accounting principles to corporate finance; how to value assets, projects, companies and investment securities; understand the relationship between risk and return and how it impacts investment and corporate decisions; how to calculate a company's cost of capital, and develop an intuitive comprehension of financial concepts and analysis.

Restricted to General Business Minors.

0101	Michael Padhi MW 8:00am - 9:15am	Seats (Total: 100) TYD 0117

BMGT350 Marketing Principles and Organization

Credits: 3 Grading Method: Regular

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

0101	Mary Beth Furst M 9:30am - 10:45am Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0201	Mary Beth Furst M 11:00am - 12:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0301	Idil Yaveroglu M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE

0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 59) VMH 1505 ONLINE
0501	Roxanne Lefkoff W 11:00am - 12:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0601	Roxanne Lefkoff W 12:30pm - 1:45pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1505 ONLINE
0701	Henry Boyd W 2:00pm - 3:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1524 ONLINE
0801	Roxanne Lefkoff M 2:00pm - 3:15pm Class time/details on ELMs *Restricted to BMGT majors with 53 credit hours completed.*	Seats (Total: 65) VMH 1524 ONLINE
SG91	Henry Boyd MW 9:30am - 10:45am *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD4 5332
SG92	Henry Boyd MW 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 60) BLD4 5332

BMGT350N Marketing Principles and Organization

Credits: 3 Grading Method: Regular

Recommended: ECON200.

An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to agricultural and resource economics (0111C) and horticulture (0107C) majors with 53 credit hours completed.

0401	Roxanne Lefkoff W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 6) VMH 1505 ONLINE

BMGT352 Customer-Centric Innovation

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Credit only granted for: BMGT352, BMGT382 or BMGT456. Formerly: BMGT352.

Addresses the management of new products and services with a focus on the innovation process, specifically the development and launching of new products or services: Opportunity Identification, Concept Generation, Design, Testing and Launch.

Restricted to BMGT majors and QUEST students with 60 credits.

0101	Idil Yaveroglu TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1415

BMGT353 Retail Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT220 and BMGT350. Credit only granted for: BMGT353 or BMGT453. Formerly: BMGT353.

Planning and implementing retail marketing strategy. Application to store and non-store (catalog, internet) retailing. Evaluation of how environmental trends in the consumer market, competition, the economy and technology affect retail strategy in the U.S. and global market.

Restricted to BMGT majors with 60 credit hours completed.

0101	Jie Zhang TuTh 12:30pm - 1:45pm	Seats (Total: 50) VMH 1206
0201	Jie Zhang TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1206

BMGT355 Foundations of Marketing for Non Business Majors

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT350; and must not be a major in the R.H. Smith School of Business. Credit only granted for: BMGT355 or BMGT350. Additional information: Course does not apply to a Smith School degree. BMGT350 may substitute for BMGT355.

Introduces the concepts and principles of marketing. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

Restricted to General Business Minors (#BU02).

0101	Idil Yaveroglu	Seats (Total: 120)
	Class time/details on ELMs	ONLINE

BMGT360 Strategic Management of Human Capital

Credits: 3 Grading Method: Regular

Provides students with the basic knowledge needed to help organizations attract, select, develop, engage, evaluate, and retain talent. Topics covered may include strategic HRM, the role of globalization, legal issues in HRM, work analysis, HR planning, recruitment, personnel selection, performance management and appraisal, training and development, career development, compensation systems, motivating and rewarding performance, labor relations, and employee health and safety.

Restricted to all students with 53 credit hours completed.

0101	Gregory Marr	Seats (Total: 60)
	MW 2:00pm - 3:15pm	VMH 1212
0201	Gregory Marr	Seats (Total: 60)
	MW 3:30pm - 4:45pm	VMH 1212

BMGT362 Negotiations

Credits: 3 Grading Method: Regular

Restriction: Must not have completed COMM425. Credit only granted for: BMGT362 or COMM425.

By using a variety of assessment tools, feedback sources, skill-building exercises, and exercise debriefings, this experiential course is designed to enhance students' negotiating self-confidence and improve students' analytical skills, interpersonal skills, creativity and persuasive abilities.

0101	Gosia Langa Basit	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	VMH 1415
	Restricted to Management majors (0503G) and I&E minors (#BU03) with 53 credits.	

0201	Gosia Langa Basit TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1415
	Restricted to Management majors (0503G) and I&E minors (#BU03) with 53 credits.	
SG91	Nima Farshchi Tu 11:00am - 1:45pm	Seats (Total: 45) BLD3 3220
	Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT363 Leadership and Teamwork in Organizations

Credits: 3 Grading Method: Regular

Provides a comprehensive understanding of fundamental leadership concepts, theories, and skills in organizations and applies to assessing and developing effective leadership practices in organizations.

Course restricted to Management majors (0503G & 0503E) with 53 credits.

0101	Gregory Marr TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1418
0201	Gregory Marr TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1336

BMGT364 Managing People and Organizations

Credits: 3 Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

0101	Roy Thomason MW 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 55) VMH 1333 ONLINE
	Restricted to BMGT majors with 53 credit hours completed. This blended section will contain a combination of synchronous in-person work and asynchronous online work.	

0201	Roy Thomason MW 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 60) VMH 1303 ONLINE
	Restricted to BMGT majors with 53 credit hours completed. This blended section will contain a combination of synchronous in-person work and asynchronous online work.	
0301	Oguz Gencay MW 5:00pm - 6:15pm	Seats (Total: 60) VMH 1303
	Restricted to BMGT majors with 53 credit hours completed.	
0401	Hui Liao TuTh 9:30am - 10:45am	Seats (Total: 60) VMH 1212
	Restricted to BMGT majors with 53 credit hours completed.	
0501	Hui Liao TuTh 11:00am - 12:15pm	Seats (Total: 60) VMH 1212
	Restricted to BMGT majors with 53 credit hours completed.	
0601	Gosia Langa Basit TuTh 3:30pm - 4:45pm	Seats (Total: 60) VMH 1212
	Restricted to BMGT majors with 53 credit hours completed.	
0701	Hae-Lyeng Kim M 7:00pm - 9:40pm	Seats (Total: 60) VMH 1303
	Restricted to BMGT majors with 53 credit hours completed.	
0801	Jesse Kellner W 7:00pm - 9:40pm	Seats (Total: 60) VMH 1330
	Restricted to BMGT majors with 53 credit hours completed.	
SG91	Vineet Gambhir MW 11:00am - 12:15pm MW 11:00am - 12:15pm	Seats (Total: 60) BLD3 3202 ONLINE
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

SG92	Vineet Gambhir	Seats (Total: 60)
	MW 12:30pm - 1:45pm MW 12:30pm - 1:45pm	BLD3 3202 ONLINE
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT364N **Managing People and Organizations**

Credits: 3 Grading Method: Regular

An introduction to selected aspects of human behavior in organizations generally known as organizational behavior (OB). This course is designed to help students develop systematic and fundamental understanding of people and their behaviors in organizations, as well as useful abilities and skills required to effectively and ethically manage various individual, interpersonal, group, and organization-level processes.

Restricted to agricultural and resource economics (0111C) and dietetics (1307D) majors with 53 credit hours completed.

0101	Roy Thomason	Seats (Total: 5)
	MW 12:30pm - 1:45pm Class time/details on ELMs	VMH 1333 ONLINE

BMGT365 **Entrepreneurial Finance and Private Equity**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher. Credit only granted for: BMGT365, ENES466, SMLP471 or HLMN471.

Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

Restricted to BMGT majors with 72 credit hours completed and Innovation and Entrepreneurship (#BU03) minors.

0101	Alan Jacobs	Seats (Total: 40)
	W 7:00pm - 9:40pm	VMH 1314

BMGT366 **Growth Strategies for Emerging Companies**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT461 or BMGT361. Restriction: Junior standing or higher.

Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

Restricted to Innovation and Entrepreneurship (#BU03) minors and Management (0503G) majors.

0101	David Kirsch TuTh 9:30am - 10:45am	Seats (Total: 45) TYD 2109
SG91	Steven Freishtat Th 11:00am - 1:40pm *Restricted to Senior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3062

BMGT367 Career Search Strategies in Business

Credits: 1 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

0101	Tyrone Clifton, Erin Saddler M 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 65) VMH 1212
0201	Erin Saddler, Susan Powell Tu 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 54) VMH 1202
0301	Adam VanWagner, Erin Saddler W 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 65) VMH 1212
0401	Erin Saddler, Tyrone Clifton M 6:00pm - 6:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 65) VMH 1212

0501	Erin Saddler, Jessica Ruday W 5:00pm - 5:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 54) VMH 1202
0601	Rahman Anjorin, Erin Saddler Tu 6:00pm - 6:50pm *Restricted to BMGT students with 45 credit hours completed.*	Seats (Total: 54) VMH 1202
SG91	Sadie Edmonds, Erin Saddler W 3:00pm - 3:50pm *Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 2062
SG92	Erin Saddler, Dina Broydo W 3:00pm - 3:50pm *Restricted to BMGT-Shady Grove Junior Accounting Majors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 2052

BMGT370 Introduction to Transportation

Credits: 3 Grading Method: Regular

An overview of the transportation field with an emphasis on freight movements from the perspective of both providers of capacity and users of freight services. Examines the characteristics of the freight modes and the role of each mode as a major component of logistics and supply chain management. Explores the economics, energy use, and finances of each mode as well as the impact of government policies on each mode's future. Discussion of infrastructure and capacity needs of the transportation system and its ability to support the economy.

Restricted to BMGT majors with 53 credit hours completed.

0101	Leland Gardner TuTh 8:00am - 9:15am	Seats (Total: 38) VMH 1411
0201	Leland Gardner TuTh 9:30am - 10:45am	Seats (Total: 38) VMH 1411

BMGT372 Introduction to Logistics and Supply Chain Management

Credits: 3 Grading Method: Regular

Supply chain management involves the coordination of suppliers, manufacturers, distributors, and retailers to ensure that products and services are available to the final consumer in a timely and cost-effective fashion. Logistics management is the subset of supply chain management dealing with the physical flows of product and includes such activities as transportation management, warehousing, materials handling, inventory management, and order fulfillment. Attention is paid to the logistics cost trade-offs within the firm and between members of the supply chain.

Restricted to BMGT majors with 53 credit hours completed.

0101	Leland Gardner TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1411
0201	Niratcha Tungtisanont TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1336
0301	Leland Gardner MW 11:00am - 12:15pm	Seats (Total: 40) VMH 1411
0401	Niratcha Tungtisanont TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 1336

BMGT375 **Supply Chain Management for Non Business Majors**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT372; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT375 or BMGT372.

Examines management decision-making in the design, implementation and coordination of a firm's supply chain activities. Topics include transportation management, warehousing, materials handling, inventory management, and order fulfillment.

Restricted to General Business Minors.

0101	Leland Gardner Class time/details on ELMs	Seats (Total: 120) ONLINE

BMGT380 **Business Law I**

Credits: 3 Grading Method: Regular

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

0101	Justin Reyna MW 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 54) VMH 1412
0201	Justin Reyna MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1412
0301	Justin Reyna MW 5:00pm - 6:15pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1412
0401	Jennifer Gershberg TuTh 9:30am - 10:45am *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1412
0501	Jennifer Gershberg TuTh 11:00am - 12:15pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1303
0601	Jennifer Gershberg TuTh 2:00pm - 3:15pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1412
0701	Ross Cooper W 7:00pm - 9:40pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1303
0801	Richard Daniels MW 3:30pm - 4:45pm *Restricted to BMGT majors with 53 credit hours completed. Other interested students should review their eligibility for BMGT380N.*	Seats (Total: 60) VMH 1303

SG91	Kevin McGarry	Seats (Total: 60)
	MW 9:30am - 10:45am	BLD2 2032
	Restricted to BMGT-shady Grove Seniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Kevin McGarry	Seats (Total: 60)
	MW 11:00am - 12:15pm	BLD2 2032
	Restricted to BMGT-Shady Grove Seniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT380N Business Law I

Credits: 3 Grading Method: Regular

Legal aspects of business relationships. Examination of torts and business crimes, contracts and agency. The law of personal property and bailment relationships. Survey of public policy issues.

Restricted to agricultural and resource economics majors (0111C) with 53 credit hours completed.

0101	Justin Reyna	Seats (Total: 6)
	MW 2:00pm - 3:15pm	VMH 1412

BMGT382 Marketing and Innovation for Entrepreneurs

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT352. Credit only granted for: BMGT352, BMGT382 or BMGT456.

Marketing and Innovation are two critically important activities that determine success in any business venture. This course will focus on understanding the fundamentals of marketing and innovation from the perspective of an entrepreneur. At a broad level, we will apply proven marketing frameworks (STP and 4Ps) to effectively deliver innovation in an entrepreneurial context.

0101	Idil Yaveroglu	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	HBK 0109
	Restricted to Innovation and Entrepreneurship Minors and non-BMGT majors.	
SG91	Mary Beth Furst	Seats (Total: 45)
	TuTh 9:30am - 10:45am	BLD2 2032
	Restricted to Junior BMGT-Shady Grove students majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT385 Operations Management

Credits: 3 Grading Method: Regular

Credit only granted for: BMGT385 or ENME426.

Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

Restricted to BMGT majors and Business Analytics minors with 53 credit hours completed.

0101	Kazim Ruhi TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 1524
0201	Kazim Ruhi TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1303

BMGT390H Designing Innovative Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: ENES390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Restricted to QUEST program students. Cross-listed with ENES390H.

0101	Joseph Bailey TuTh 3:30pm - 4:45pm	Seats (Total: 55) JMZ 0220

BMGT392 Introduction to International Business Management

Credits: 3 Grading Method: Regular

Prerequisite: ECON200.

A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

Restricted to BMGT majors with 53 credit hours completed.

0101	Wilbur Chung MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1314

0201	Wilbur Chung	Seats (Total: 40)
	MW 3:30pm - 4:45pm	VMH 1314

BMGT395 **Principles of Management for Non Business Majors**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed BMGT364; and must not be a major in the Robert H. Smith School of Business. Credit only granted for: BMGT395 or BMGT364.

Introduces concepts related to organization behavior. Topics include leadership, team decision making and management, conflict resolution and negotiations, organizational culture, and organization change. Students will learn how to apply those concepts and theories to understanding and critically analyzing various individual, interpersonal, group, and organizational management processes.

Restricted to General Business Minors.

0101	Trevor Foulk, Nicole Coomber	Seats (Total: 120)
	Class time/details on ELMs	ONLINE

BMGT397 **Mentoring Multidisciplinary Teams**

Credits: 3 Grading Method: Regular

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

Restricted to QUEST program students. Cross-listed with ENES397.

0101	Pamela Armstrong	Seats (Total: 9)
	Tu 5:00pm - 7:40pm	VMH 1415

BMGT398 **Individual Study in Business and Management**

(Perm req)

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

BMGT398A **Individual Study in Business and Management; Internship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Restricted to Smith School of Business students. Interested students should contact Erin Fields Saddler (esaddler@rhsmith.umd.edu) for details and permission.

0101	Erin Saddler Contact instructor or department for details.	Seats (Total: 35)	
SG91	Erin Saddler Contact instructor or department for details.	Seats (Total: 10)	

BMGT398C **Individual Study in Business and Management; Undergraduate Teaching Scholars Training**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restricted to Accounting Teaching Scholars (FPTS).

0101	Progyan Basu Contact instructor or department for details.	Seats (Total: 19)

BMGT402 **Database Systems**

Credits: 3 Grading Method: Regular

Recommended: BMGT302. Credit only granted for: INST327 or BMGT402.

The fundamentals of database management systems (DBMS), data models, query processing, and data warehouses, and their application in the development of business information systems will be covered. An important goal of this course is to understand the value of information resources and information management challenges within an organization.

Restricted to Information Systems majors with 60 credits completed and other BMGT majors and Business Analytics minors with 72 credits completed.

0101	John Bono TuTh 2:00pm - 3:15pm Th 6:00pm - 6:50pm	Seats (Total: 35) VMH 2203 VMH 2203	 Lab
0201	Bingze Xu MW 3:30pm - 4:45pm Tu 6:00pm - 6:50pm	Seats (Total: 35) VMH 2203 VMH 2203	 Lab
0301	Rachit Kamdar MW 9:30am - 10:45am Tu 7:00pm - 7:50pm	Seats (Total: 35) VMH 2203 VMH 2203	 Lab
0401	John Bono TuTh 8:00am - 9:15am Th 5:00pm - 5:50pm	Seats (Total: 35) VMH 2203 VMH 2203	 Lab

BMGT403 **Systems Analysis and Design**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT301; or students who have taken courses with comparable content may contact the department. Recommended: BMGT302.

Techniques and tools applicable to the analysis and design of computer-based information systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

Restricted to Information System students with 72 credits completed.

0101	Hassan Ibrahim MW 2:00pm - 3:15pm	Seats (Total: 39) VMH 2203
0201	Hassan Ibrahim MW 12:30pm - 1:45pm	Seats (Total: 39) VMH 2203
0301	Hassan Ibrahim M 7:00pm - 9:40pm	Seats (Total: 39) VMH 2203
0401	Sindhu Rajan W 7:00pm - 9:40pm	Seats (Total: 39) VMH 1336

BMGT406 Developing Applications for the Web and Social Media

Credits: 3 Grading Method: Regular

Prerequisite: BMGT402 and BMGT302. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: INST377 or BMGT406.

The design and development of Web applications and the underlying platforms and standards for Web application development will be covered. It will examine the phenomenon of social media, social networking and crowdsourcing and understand their use within organizations.

Restricted to Information Systems majors with 60 credits completed and other BMGT majors with 72 credits completed.

0101	Louiqa Raschid MW 5:00pm - 6:50pm	Seats (Total: 20) VMH 2203

BMGT407 Information Systems Projects

Credits: 3 Grading Method: Regular

Prerequisite: BMGT402 and BMGT403. Restriction: Senior standing.

Senior capstone course for the decision and information sciences major. Collected knowledge from the DIS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

Restricted to Information Systems majors with 86 credit hours completed.

0101	Hassan Ibrahim MW 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE
0201	Hassan Ibrahim W 7:00pm - 9:40pm Class time/details on ELMs	Seats (Total: 35) VMH 2203 ONLINE

BMGT408E **Emerging Topics in Information Systems; Big Data and AI using Cloud Computing**

Credits: 3 Grading Method: Regular

Selected advanced topics covering emerging developments in the field of decision and information technologies.

Prerequisite: BMGT302. Restricted to Information Systems majors with 60 credit hours completed and other BMGT majors and Business Analytics minors with 72 credit hours completed.

0101	Sanjay Chawla M 12:30pm - 1:45pm W 12:30pm - 1:45pm	Seats (Total: 35) VMH 1314 ONLINE

BMGT411 **Ethics and Professionalism in Accounting**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT311. Restriction: Must be in Accounting program.

Analysis and discussion of issues relating to ethics and professionalism in accounting.

Restricted to Accounting majors with 86 credit hours completed.

0101	Mary Keim MW 11:00am - 12:15pm	Seats (Total: 30) VMH 1307
0201	Mary Keim MW 9:30am - 10:45am	Seats (Total: 30) VMH 1307

BMGT417 **Taxation of Corporations, Partnerships and Estates**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT221.

Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

Restricted to Accounting majors with 84 credit hours completed.

0101	Jeffrey Milton MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1307

BMGT422 Auditing Theory and Practice

Credits: 3 Grading Method: Regular

Prerequisite: BMGT310; and must have completed or be concurrently enrolled in BMGT311.

A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

0101	James McKinney MW 11:00am - 12:15pm *Restricted to Accounting majors.*	Seats (Total: 38) VMH 1518
0201	James McKinney MW 12:30pm - 1:45pm *Restricted to Accounting majors.*	Seats (Total: 38) VMH 1518
SG91	Patrick McNamee TuTh 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Seniors majoring in Accounting. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 3012

BMGT428J Special Topics in Accounting; Accounting Advisory for Closely Held Businesses

Credits: 3 Grading Method: Regular

Selected advanced topics in Accounting.

Prerequisites: BMGT220 and BMGT340. Restricted to Accounting and Finance majors.

0101	Brent Solomon TuTh 3:30pm - 4:45pm	Seats (Total: 38) VMH 2505

BMGT430 Data Modeling in Business

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or permission of BMGT-Robert H. Smith School of Business.

Explores the role of statistical models in business analytics to drive managerial decision-making and improve performance through the use of relevant data-motivated examples. Topics include regression models (both simple and multiple regression, as well as logistic regression for binary data), model validation, variable transformation, variable selection, discriminant analysis, and forecasting. These topics are modeled using state-of-the-art data analytics software.

Restricted to BMGT majors with 72 credit hours completed or Business Analytics minors.

0101	Radu Lazar MW 8:00am - 9:15am	Seats (Total: 40) VMH 1206
0201	Radu Lazar MW 9:30am - 10:45am	Seats (Total: 40) VMH 1206
0301	Radu Lazar MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 1303
0401	Radu Lazar MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1303

BMGT431 Data Analytics

Credits: 3 Grading Method: Regular

Prerequisite: BMGT430.

An introduction to the tools and techniques that are central to the analysis of abundant data that is being collected in many forms including web traffic, social network data, and reviews and comments on websites.

Restricted to Business Analytics minors or OM majors.

0101	Radu Lazar TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1307
0201	Radu Lazar TuTh 5:00pm - 6:15pm	Seats (Total: 45) VMH 1307

BMGT434 Analytics Consulting: Cases and Projects

Credits: 3 Grading Method: Regular

Prerequisite: BMGT332 and BMGT385.

This course assumes that students have already been introduced to the concepts and techniques of operations research/business analytics (OR/BA). Published papers, short cases, and projects in OR/BA will be analyzed and discussed in a thoughtful way, taking into account the soft (people-related) issues and the hard (mathematical/optimization) issues.

Restricted to BMGT majors, QUEST students, and Business Analytics minors with 72 credit hours completed.

0101	Bruce Golden	Seats (Total: 40)
	MW 2:00pm - 3:15pm	VMH 1206

BMGT435 Business Process Simulation

Credits: 3 Grading Method: Regular

Prerequisite: BMGT332 and BMGT385.

Covers the methods for computer simulation modeling and analysis of complex systems. Students are assumed to have been introduced to the basic techniques and applications in the field of operations management and business analytics. Course emphasis is on modeling of real-world systems (for example, inventory or queueing systems), implementing simulations in special purpose software, and analyzing simulation results.

Restricted to BMGT majors or Business Analytics minors with 60 credits completed.

0101	Sujin Kim	Seats (Total: 45)
	TuTh 9:30am - 10:45am	VMH 1307

BMGT438A Special Topics in Operations Management; Applied Quantitative Analysis

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in operations management.

Course restricted to QUEST students. Cross-listed with ENES489A. Credit granted for BMGT438A or ENES489A.

0101	Joseph Bailey	Seats (Total: 55)
	TuTh 2:00pm - 3:15pm	TWS 1310

BMGT438T Special Topics in Operations Management; Cross-Cultural Perspectives on Quality

Credits: 3 Grading Method: Regular

Selected advanced topics in operations management.

Restricted to Quest Program students.

0101	David Ashley	Seats (Total: 20)
	M 5:00pm - 7:40pm	VMH 2509

BMGT440 Advanced Financial Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340.

Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

Restricted to BMGT majors with 68 credit hours completed.

0101	James Seward MW 9:30am - 10:45am	Seats (Total: 50) VMH 1335
0201	David Kass TuTh 2:00pm - 3:15pm	Seats (Total: 50) VMH 1335
0301	David Kass TuTh 3:30pm - 4:45pm	Seats (Total: 50) VMH 1335
0401	James Seward MW 11:00am - 12:15pm	Seats (Total: 50) VMH 1335
0501	David Kass TuTh 11:00am - 12:15pm	Seats (Total: 50) VMH 1335

BMGT441 Fixed Income

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Credit only granted for: BMGT448A or BMGT441. Formerly: BMGT448A.

Describes important financial instruments which have market values that are sensitive to interest rate movements. Develops tools to analyze interest rate sensitivity and value fixed income securities. Defines and explains the vocabulary of the bond management business.

Restricted to Finance majors with 72 credit hours completed.

0101	Aysun Alp Paukowits MW 9:30am - 10:45am	Seats (Total: 45) VMH 1418
0201	Aysun Alp Paukowits MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1418

BMGT443 Applied Equity Analysis and Portfolio Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT343.

Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

Restricted to BMGT majors with 84 credit hours completed.

0101	Joseph Perfetti MW 11:00am - 12:15pm	Seats (Total: 48) VMH 3505
0201	Joseph Perfetti MW 8:00am - 9:15am	Seats (Total: 48) VMH 3505
0301	Joseph Perfetti MW 9:30am - 10:45am	Seats (Total: 48) VMH 3505
0401	Joseph Perfetti MW 12:30pm - 1:45pm	Seats (Total: 48) VMH 3505

BMGT444 **Futures and Options Contracts**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT343. Credit only granted for: BMGT444 or MATH424.

The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

Restricted to Finance majors with 84 credit hours completed.

0101	Michael Cichello MW 5:00pm - 6:15pm	Seats (Total: 40) VMH 1411
0201	Michael Cichello MW 12:30pm - 1:45pm	Seats (Total: 40) VMH 1411

BMGT445 **Banking and Financial Institutions**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340. Recommended: ECON330 or BMGT341.

Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

Restricted to Finance majors with 84 credit hours completed.

0101	Levent Guntay MW 12:30pm - 1:45pm	Seats (Total: 47) ONLINE
0201	Levent Guntay MW 3:30pm - 4:45pm	Seats (Total: 47) ONLINE

BMGT446 **International Finance**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT340.

Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

Restricted to Finance and International Business majors with 72 credit hours completed.

0101	Chenyang Wang TuTh 9:30am - 10:45am	Seats (Total: 45) VMH 1335
0201	Vojislav Maksimovic W 7:00pm - 9:40pm	Seats (Total: 45) VMH 1415
0301	Chenyang Wang TuTh 12:30pm - 1:45pm	Seats (Total: 45) VMH 1335

BMGT448L **Special Topics in Finance; Hedge Fund Management**

Credits: 3 Grading Method: Regular

Selected advanced topics in finance.

Prerequisite: BMGT340. Restricted to Finance majors with 72 credit hours completed.

0101	Kenneth Brodkowitz TuTh 11:00am - 12:15pm	Seats (Total: 45) VMH 3505

BMGT448X **Special Topics in Finance; Private Equity Strategy & Execution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in finance.

Prerequisite: BMGT340. Restricted to Finance majors with 60 or more credits completed.

0101	Jeron Davis M 7:00pm - 9:40pm	Seats (Total: 50) VMH 1202

BMGT449F **Investment Fund Management: Lemma Senbet Fund**

Credits: 3 Grading Method: Regular

The Lemma Senbet Fund is a year-long, advanced finance course available to undergraduate finance majors in their senior year. Ten to twelve students will be selected in the spring of their junior year to participate on the fund, two as portfolio managers and eight to ten as equity analysts. The course provides students with the opportunity to apply what they have learned in finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money.

Restricted to Lemma Senbet Fund Fellows (FPSF).

FP01	Sarah Kroncke TuTh 12:00pm - 1:50pm	Seats (Total: 12) VMH 2509

BMGT450 Integrated Marketing Communications

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT354 or BMGT450. Formerly: BMGT354.

In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

SG91	Marjorie Bonavia TuTh 9:30am - 10:45am *Restricted to BMGT-Shady Grove Seniors majoring in Market ing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 45) BLD2 1032

BMGT451 Consumer Analysis

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Recommended: PSYC100; and PSYC221.

Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

Restricted to Marketing majors with 68 credit hours completed.

0101	Marjorie Bonavia MW 12:30pm - 1:45pm	Seats (Total: 45) VMH 1415
0201	Marjorie Bonavia MW 2:00pm - 3:15pm	Seats (Total: 45) VMH 1415

0301	Marjorie Bonavia MW 11:00am - 12:15pm	Seats (Total: 45) VMH 1415

BMGT452 Marketing Research Methods

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350 and BMGT230.

Focuses on aiding marketing decision-making through exploratory, descriptive and casual research. Develops student skills in designing market research studies, including selection of data collection method, development of data collection instrument, sample design, collection and statistical analysis of data and reporting the results.

0101	Bo Zhou TuTh 2:00pm - 3:15pm *Restricted to Marketing majors with 72 credit hours completed.*	Seats (Total: 45) VMH 1303
0201	Richard Toohey TuTh 3:30pm - 4:45pm *Restricted to Marketing majors with 72 credit hours completed.*	Seats (Total: 45) VMH 1415
0301	Fangfang Ma TuTh 9:30am - 10:45am *Restricted to Marketing majors with 72 credit hours completed.*	Seats (Total: 40) VMH 1303
SG91	Richard Toohey TuTh 11:00am - 12:15pm *Restricted to BMGT-Shady Grove Seniors majoring in Marketing. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.*	Seats (Total: 40) BLD2 1032

BMGT454 Global Marketing

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350.

Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product adaptation, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

Restricted to BMGT majors with 72 credit hours completed.

0101	Kathleen Kelly TuTh 11:00am - 12:15pm	Seats (Total: 52) VMH 1336

BMGT457 **Marketing Policies and Strategies**

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: BMGT350.

This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

Restricted to Marketing majors with 100 credit hours completed.

0101	Mary Harms TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 2505
0201	Mary Harms TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 3505

BMGT458A **Special Topics in Marketing; Design and Innovation in Marketing**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in marketing.

FP01	Mary Harms TuTh 5:00pm - 6:15pm *Restricted to students in the Strategic Design and Innovation Fellows program.*	Seats (Total: 35) VMH 1314

BMGT458B **Special Topics in Marketing; Design Applications in Marketing and Branding**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in marketing.

FP01	Howard Bomstein M 7:00pm - 9:40pm *Restricted to students in the Strategic Design and Innovation Fellows program.*	Seats (Total: 35) VMH 1307

BMGT458F **Special Topics in Marketing; The Creative Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in marketing.

Contact department for information to register for this course.

BMGT458Q **Special Topics in Marketing; Computer Graphics Workshop**

Credits: 3 Grading Method: Regular

Selected advanced topics in marketing.

FP01	Kelly Driver	Seats (Total: 26)
	W 7:00pm - 9:40pm	ATL 1410
	Restricted to students in the Strategic Design and Innovation Fellows program.	

BMGT458R **Special Topics in Marketing; Advanced Computer Graphics Workshop**

Credits: 3 Grading Method: Regular

Selected advanced topics in marketing.

Restricted to students in the Strategic Design and Innovation Fellows program.

FP01	Kelly Driver	Seats (Total: 17)
	W 4:00pm - 6:40pm	ATL 1410

BMGT461 **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

0101	Maurice Boissiere	Seats (Total: 24)
	Tu 7:00pm - 9:40pm	VMH 1206
	Restricted to BMGT majors with 72 credit hours completed. Non-majors should register for BMGT 461N.	
SG91	Le-Marie Thompson	Seats (Total: 45)
	Th 2:00pm - 4:40pm	BLD2 3062
	Restricted to Junior BMGT-Shady Grove students majoring in Management. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

BMGT461M **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to Innovation & Entrepreneurship Minors (#BU03).

0101	Jose Teixeira	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	ESJ 1309

BMGT461N **Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed BMGT361. Credit only granted for: BMGT261, BMGT361, BMGT461, ENES460, SMLP470 or HLMN470.

Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

Restricted to non-BMGT majors with 72 credits. Not open to innovation and Entrepreneurship minors.

0101	Maurice Boissiere	Seats (Total: 16)
	Tu 7:00pm - 9:40pm	VMH 1206

BMGT463 **Cross-cultural Challenges in Business**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

0101	Debra Shapiro	Seats (Total: 45)
	MW 2:00pm - 3:15pm	VMH 1418
	Restricted to International Business & Mgmt majors with 72 credits.	

BMGT466 **Global Business Strategy**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

Restricted to International Business majors and Management majors with 72 credit hours completed.

0101	Paulo Prochno Th 7:00pm - 9:40pm	Seats (Total: 40) ESJ 0215
0201	Paulo Prochno Th 4:00pm - 6:40pm	Seats (Total: 40) ESJ 1309

BMGT468F **Special Topics in Management and Organization; Doing Business in Emerging Markets**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Contact department for information to register for this course.

BMGT468G **Special Topics in Management and Organization; The Value Creation Challenge**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in management and organization.

Visit this link for more information.

0101	Oliver Schlake W 5:00pm - 7:40pm	Seats (Total: 12) JMZ 1224
	Restricted to BMGT majors with 30 credit hours completed.	

BMGT468R **Special Topics in Management and Organization; Fearless Founders: New Venture Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Selected advanced topics in management and organization.

0101	Le-Marie Thompson M 5:00pm - 7:40pm	Seats (Total: 25) VMH 1415

BMGT468V **Special Topics in Management and Organization; Business Models and Methods to Affect Social Change**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to students with 30 or more credits.

0101	David Kirsch TuTh 2:00pm - 3:15pm	Seats (Total: 42) VMH 1307

BMGT468X **Special Topics in Management and Organization; The Value Creation Challenge**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected advanced topics in management and organization.

Visit this link for more information.

0101	Oliver Schlake	Seats (Total: 18)
	W 5:00pm - 7:40pm	JMZ 1224
	Restricted to non-BMGT majors with 30 credit hours completed.	

BMGT468Y **Special Topics in Management and Organization; Entrepreneurial Capitalism Around the World**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

Restricted to students with 60 credit hours completed.

0101	Serguey Braguinsky	Seats (Total: 60)
	MW 9:30am - 10:45am	TYD 1101

BMGT468Z **Special Topics in Management and Organization; Create the Future through Systems Thinking and Design**

Credits: 3 Grading Method: Regular

Selected advanced topics in management and organization.

0101	Gerald Suarez	Seats (Total: 35)
	MW 11:00am - 12:15pm	ESJ 1309
	Restricted to students with 60 credit hours completed.	
0201	Gerald Suarez	Seats (Total: 35)
	M 12:30pm - 1:45pm	PLS 1111
	W 12:30pm - 1:45pm	ESJ 2101
	Restricted to BMGT majors only.	

BMGT472 **Purchasing and Inbound Logistics**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT372.

Analysis of the resupply activities of logistics management, including purchasing policies, transportation planning, and inventory control. Attention is directed toward total cost minimization and the establishment of a sustainable competitive advantage based on procurement.

Restricted to Supply Chain Management majors only.

0101	Philip Evers	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	VMH 2505

0201	Philip Evers TuTh 12:30pm - 1:45pm	Seats (Total: 40) VMH 2505

BMGT475 Supply Chain Strategy and Network Design

Credits: 3 Grading Method: Regular

Prerequisite: BMGT372.

Analysis of the strategic aspects of supply chain management. Emphasis on the creation of end-user value through supply chain cost reductions, service improvements or both. Attention is directed toward the enabling role of technology in support of strategy evaluation and implementation.

Restricted to Supply Chain Management majors (0503T).

0101	Leland Gardner MW 2:00pm - 3:15pm	Seats (Total: 40) VMH 1411

BMGT476 Technology Applications in Supply Chain Management

Credits: 3 Grading Method: Regular

Prerequisite: BMGT372.

An understanding of the role of technology in managing the supply chain. Provides students with hands-on experience in advanced software systems that build on top of enterprise resource planning systems. Major emphasis is placed on demonstrating that these systems result in supply chain cost reductions and service improvements.

Restricted to Supply Chain Management and Information Systems majors.

0101	Hongyi Zhang TuTh 11:00am - 12:15pm	Seats (Total: 24) VMH 3522

BMGT477 International Supply Chain Management

Credits: 3 Grading Method: Regular

The study of the importance of the supply chain management within a global context. Topics covered include: the structure, service, pricing and competitive relationships among international carriers and transport intermediaries as well as documentation, location decisions, international sourcing/distribution and management of inventory throughout the international supply chain.

Restricted to Supply Chain Management and International Business majors.

0101	Abhay Grover TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1206
0201	Niratcha Tungtisanont TuTh 5:00pm - 6:15pm	Seats (Total: 40) VMH 1206

BMGT478G **Special Topics in Supply Chain Management; Supply Chain Consulting**

Credits: 3 Grading Method: Regular

Selected advanced topics in supply chain management.

Prerequisite: Must have completed or be concurrently enrolled in BMGT372. Restriction: Must be a student with SCM majors (0503T).

0101	Thomas Corsi M 6:30pm - 9:10pm	Seats (Total: 30) VMH 1314

BMGT484 **Digital Marketing**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT350. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services through digital means, including the web, social media, and mobile apps. Both the development and analysis of digital media for marketing will be discussed.

Restricted to BMGT majors with 60 credit hours completed.

0101	Yi Chen TuTh 2:00pm - 3:15pm	Seats (Total: 45) VMH 3505
0201	Yi Chen TuTh 3:30pm - 4:45pm	Seats (Total: 45) VMH 1202

BMGT485 **Project Management**

Credits: 3 Grading Method: Regular

Prerequisite: BMGT231 or BMGT230; or students who have taken courses with comparable content may contact the department. Restriction: Must be in a major in BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

Restricted to Information Systems majors with 60 credit hours completed and BMGT majors & Quest students with 72 credit hours completed.

0101	Paul Shapiro MW 3:30pm - 4:45pm	Seats (Total: 50) VMH 1335

BMGT490H **QUEST Capstone Professional Practicum**

Credits: 4 Grading Method: Regular General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: ENES490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Restricted to Quest Program students.

0101	Hassan Ibrahim, David Ashley	Seats (Total: 45)
	W 5:00pm - 7:40pm	ESJ 1215
	Contact instructor or department for details.	

BMGT491 **Scoping Experiential Learning Projects**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: ENES491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Prerequiste: BMGT190H or ENES190H. Restricted to Quest. Cross-listed with ENES491.

0101	Jessica Roffe	Seats (Total: 9)
	F 10:00am - 12:15pm	VMH 3330H
	Contact instructor or department for details.	

BMGT495 **Strategic Management**

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

A case-based course where students learn to play the role of the "strategic manager" who defines the scope of its business operations and, within the chosen scope, how the firm will compete against rivals. This course focuses on how a firm can both formulate effective business-level and corporate-level strategies to achieve competitive advantage and earn above average profits.

Restricted to BMGT students with 60 credit hours completed.

0101	Evan Starr MW 9:30am - 10:45am	Seats (Total: 48) VMH 1202
0201	Protiti Dastidar MW 11:00am - 12:15pm	Seats (Total: 48) VMH 1202
0301	Protiti Dastidar MW 12:30pm - 1:45pm	Seats (Total: 48) VMH 1202
0401	Evan Starr MW 2:00pm - 3:15pm	Seats (Total: 48) VMH 1202
0501	Clarence Wesley MW 3:30pm - 4:45pm	Seats (Total: 48) VMH 1202
0601	Clarence Wesley MW 5:00pm - 6:15pm	Seats (Total: 48) VMH 1206
0701	Waverly Ding TuTh 9:30am - 10:45am	Seats (Total: 48) VMH 1202
0801	Waverly Ding TuTh 11:00am - 12:15pm	Seats (Total: 48) VMH 1202
0901	Waverly Ding TuTh 12:30pm - 1:45pm	Seats (Total: 48) VMH 1202
1001	Waverly Ding TuTh 2:00pm - 3:15pm	Seats (Total: 48) VMH 1202

BMGT600 **Leadership and Teamwork**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BMGT600, BUSI662 or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

0501	Sheetal Singh **Meets August 29, 2022 - October 17, 2022** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1511

BMGT602 **Introduction to Financial Accounting**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI610, BUAC602, BUFN602, or BMGT602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

0501	Nick Seybert **Meets August 29, 2022 - October 17, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1520

BMGT606 **Data Driven Decision Making**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630 or BMGT606.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Tunay Tunca **Meets August 29, 2022 - October 17, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1511

BMGT610 **Financial Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI640, BUFN610, or BMGT610.

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

0501	Richmond Mathews **Meets October 24, 2022 - December 13, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1511

BMGT612 **Marketing Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI650 or BMGT612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

0501	Judy Frels **Meets October 24, 2022 - December 13, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1520

BMGT758I **Special Topics in Business and Management; Purposeful Leadership**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Sarah Wolek **Meets October 24, 2022 - December 13, 2022** W 12:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 30) VMH 2505

BMGT758N **Special Topics in Business and Management; Negotiation and Conflict Management**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Rellie Rozin **Meets August 29, 2022 - October 17, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1520

BMGT758X **Special Topics in Business and Management; Experiential Learning I**

(Perm req)

Credits: 1 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0501	Roy Thomason, Rellie Rozin **Meets October 24, 2022 - December 13, 2022** W 2:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 42) VMH 2505

BMGT808R **Special Topics in Information Systems; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Siva Viswanathan Contact instructor or department for details.	Seats (Total: 12)

BMGT808X **Special Topics in Information Systems; Machine Learning for Business Research**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Kunpeng Zhang **Meets August 29, 2022 - October 14, 2022** F 11:00am - 2:35pm	Seats (Total: 12) VMH 4335

BMGT808Y **Special Topics in Information Systems; Machine Learning Applications in Business Research**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Information Systems doctoral field of study.

0101	Jessica Clark **Meets October 17, 2022 - December 12, 2022** F 11:00am - 2:35pm	Seats (Total: 12) VMH 4335

BMGT818R **Special Topics in Accounting and Information Assurance; Workshop in Accounting Research**

Credits: 1-2 Grading Method: Regular, Audit

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Michael Kimbrough Contact instructor or department for details.	Seats (Total: 12)

BMGT818T **Special Topics in Accounting and Information Assurance; Textual Analysis for Corporate Disclosure**

Credits: 3 Grading Method: Regular

Special topics specific to the Accounting and Information Assurance doctoral field of study.

0101	Sean Cao	Seats (Total: 12)
	M 2:30pm - 6:00pm	VMH 3330H

BMGT828 **Independent Study in Business and Management**

Credits: 1-9 Grading Method: Regular

Contact department for information to register for this course.

BMGT830 **Operations Research: Linear Programming**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH240; or students who have taken courses with comparable content may contact the department; or permission of BMGT-Robert H. Smith School of Business.

Concepts and applications of linear programming models, theoretical development of the simplex algorithm, and primal-dual problems and theory.

0101	Raghu Raghavan	Seats (Total: 12)
	TuTh 12:30pm - 1:45pm	VMH 1518

BMGT834 **Operations Research: Probabilistic Models**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH241; and (STAT400; or students who have taken courses with comparable content may contact the department). Or permission of BMGT-Robert H. Smith School of Business.

Theoretical foundations for the construction, optimization, and applications of probabilistic models. Queueing theory, inventory theory, Markov processes, renewal theory, and stochastic linear programming.

0101	Michael Fu	Seats (Total: 20)
	W 1:05pm - 3:45pm	VMH 2509

BMGT838R **Special Topics in Operations Management/Management Science; Research Seminar in Decision, Operations and Information Technologies**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Operations Management/Management Science doctoral field of study.

0101	Zhi-Long Chen	Seats (Total: 12)
	Contact instructor or department for details.	

BMGT848F **Special Topics in Finance; Workshop in Finance Research**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Finance doctoral field of study.

0101	Serhiy Kozak	Seats (Total: 12)
	F 9:00am - 12:00pm	VMH 1333

BMGT858A **Special Topics in Marketing; Consumer Goals and Motivation**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

0101	Rebecca Ratner	Seats (Total: 12)
	Meets October 24, 2022 - December 12, 2022	
	M 1:00pm - 4:30pm	VMH 3370

BMGT858G **Special Topics in Marketing; Analytical Models**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

0101	Bo Zhou	Seats (Total: 12)
	Meets October 17, 2022 - December 12, 2022	
	Contact instructor or department for details.	

BMGT858R **Special Topics in Marketing; Marketing Research Seminar**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Marketing doctoral field of study.

Course restricted to Marketing PhD students only

0101	Ali Faraji-Rad	Seats (Total: 16)
	F 10:00am - 12:30pm	VMH 1303

BMGT868C **Special Topics in Organizational Behavior/Human Resource Management; Career and Professionalization Workshop in Management and Organization**

Credits: 1

Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	David Kirsch	Seats (Total: 20)
	F 12:30pm - 2:00pm	Location: TBA

BMGT868D **Special Topics in Organizational Behavior/Human Resource Management; Decision Making**

Credits: 2

Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Rellie Rozin	Seats (Total: 12)
	Meets August 29, 2022 - October 14, 2022	
	Tu 11:00am - 2:35pm	VMH 4534

BMGT868N **Special Topics in Organizational Behavior/Human Resource Management; Open Science Workshop**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Gilad Chen	Seats (Total: 12)
	Meets September 19, 2022 - November 14, 2022	
	M 12:30pm - 4:40pm	VMH 4535

BMGT868P **Special Topics in Organizational Behavior/Human Resource Management; Organizational Behavior and Human Resource Management Presentations**

Credits: 1

Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Trevor Foulk	Seats (Total: 10)
	Th 2:00pm - 3:30pm	VMH 2509

BMGT868R **Special Topics in Organizational Behavior/Human Resource Management; OBHR Foundations**

Credits: 2

Grading Method: Regular, Audit

Special topics specific to the Organizational Behavior/Human Resource Management doctoral field of study.

0101	Subrahmaniam Tangirala **Meets October 24, 2022 - December 12, 2022** M 9:00am - 12:10pm	Seats (Total: 12) VMH 4534

BMGT878C **Special Topics in Strategic Management and Entrepreneurship; Cross Disciplinary Workshop**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Instructor: TBA Th 11:00am - 12:30pm	Seats (Total: 12) VMH 1520

BMGT878M **Special Topics in Strategic Management and Entrepreneurship; Formal Modeling**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Serguey Braguinsky **Meets October 17, 2022 - December 12, 2022** W 3:30pm - 7:05pm	Seats (Total: 12) VMH 4535

BMGT878P **Special Topics in Strategic Management and Entrepreneurship; Strategy and Entrepreneurship PhD Presentations**

Credits: 1 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	Waverly Ding, Brent Goldfarb Th 9:15am - 10:45am	Seats (Total: 12) VMH 1520

BMGT878R **Special Topics in Strategic Management and Entrepreneurship; Straegy and Entrepreneurship Research Methods Foundation**

Credits: 2 Grading Method: Regular, Audit

Special topics specific to the Strategic Management and Entrepreneurship doctoral field of study.

0101	David Waguespack **Meets August 29, 2022 - October 14, 2022** W 3:30pm - 7:05pm	Seats (Total: 12) VMH 4535

BMGT888B **Special Topics in Supply Chain Management; Economics of International Business**

Credits: 2 Grading Method: Regular

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Wilbur Chung **Meets August 29, 2022 - October 14, 2022** W 9:30am - 1:05pm	Seats (Total: 12) VMH 2330

BMGT888W **Special Topics in Supply Chain Management; Workshop in Supply Chain Management**

Credits: 1 Grading Method: Regular

Special topics specific to the Supply Chain Management doctoral field of study.

0101	Martin Dresner Contact instructor or department for details.	Seats (Total: 12)

BMGT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

BMGT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BMSO Online Business MS Programs Fall 2022

BMSO758E **Special Topics in Business; Advanced Marketing Analytics**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

MS31	Michel Wedel **Meets October 24, 2022 - December 15, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BMSO758G **Special Topics in Business; Customer Equity Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

MS31	Pallassana Kannan **Meets August 29, 2022 - October 13, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE	

BMSO758M **Special Topics in Business; Marketing Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

MS31	Mary Beth Furst **Meets August 29, 2022 - October 13, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE	

BSCI Biological Sciences Program Fall 2022

BSCI126 **Pollinators in Crisis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS, SCIS

We will dissect the pollinator crisis, and in the process learn about insects, about the interaction of organisms in complex ecosystems, and about the human-nature interface. Students will work in groups that specialize in an aspect of pollinator biology and their challenges. Instruction will target methods for collecting information, interpretation of scientific information and the professional presentation of findings.

(Sponsoring Dept.: ENTM). Not acceptable for credit for any Biological Sciences major.

0101	David Hawthorne TuTh 8:00am - 9:15am Tu 9:30am - 10:20am	Seats (Total: 20) PLS 1140 PLS 1161	 Discussion
0102	David Hawthorne TuTh 8:00am - 9:15am Tu 11:00am - 11:50am	Seats (Total: 20) PLS 1140 PLS 1161	 Discussion
0103	David Hawthorne TuTh 8:00am - 9:15am Th 9:30am - 10:20am	Seats (Total: 20) PLS 1140 PLS 1161	 Discussion

0104	David Hawthorne TuTh 8:00am - 9:15am Th 11:00am - 11:50am	Seats (Total: 20) PLS 1140 PLS 1161	 Discussion

BSCI135 **Amazing Green: Plants that Transformed the World**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL, SCIS

An interactive way to learn about plants and science, focusing on how plants have changed human history, the biology of their growth, and the science behind their use.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee. Not acceptable for credit for any Biological Sciences major.

0101	Edgar Moctezuma TuTh 9:30am - 10:45am M 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0102	Edgar Moctezuma TuTh 9:30am - 10:45am Tu 12:00pm - 2:00pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0103	Edgar Moctezuma TuTh 9:30am - 10:45am W 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0104	Edgar Moctezuma TuTh 9:30am - 10:45am Th 12:30pm - 2:30pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab
0105	Edgar Moctezuma TuTh 9:30am - 10:45am W 3:00pm - 4:50pm	Seats (Total: 24) HJP 0226 HJP 3237	 Lab

BSCI150 **Beyond Race: Human Biological Diversity**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL, DSSP, DVUP, SCIS

Credit only granted for: BSCI189I or BSCI150. Formerly: BSCI189I.

Race and racism are two of the most important issues in modern American society. Implicit in all considerations of race is the question of whether people of different races are genetically different from one another. The scientific answer to this question is "no". This course allows students to learn, discuss, and apply the scientific evidence for rejecting races as biological categories. The course covers basic biology, human evolution, human phylogenetics, and a critique of race as an explanation for human diversity and traits.

Students must pay a $40.00 laboratory materials fee.

1003	Philip Johnson, Kimberly Paczolt, Nicholas Fletcher MWF 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab
1005	Philip Johnson, Nicholas Fletcher, Kimberly Paczolt MWF 11:00am - 11:50am Tu 1:00pm - 3:50pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab
1007	Nicholas Fletcher, Kimberly Paczolt, Philip Johnson MWF 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab
1009	Kimberly Paczolt, Nicholas Fletcher, Philip Johnson MWF 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab
1011	Kimberly Paczolt, Nicholas Fletcher, Philip Johnson MWF 11:00am - 11:50am Th 9:30am - 12:20pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab
1013	Philip Johnson, Nicholas Fletcher, Kimberly Paczolt MWF 11:00am - 11:50am Th 1:00pm - 3:50pm	Seats (Total: 24) BPS 1250 HJP 3239	Lab

BSCI160 Principles of Ecology and Evolution

Credits: 3 Grading Method: Regular General Education: DSNL (if taken with BSCI161), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI106 or BSCI160. Formerly: BSCI106.

Basic principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI).

6101	Magdalene Ngeve TuTh 9:30am - 10:45am	Seats (Total: 125) ESJ 1202	
6201	Magdalene Ngeve TuTh 12:30pm - 1:45pm	Seats (Total: 125) ESJ 1202	
6301	Leo Shapiro TuTh 2:00pm - 3:15pm	Seats (Total: 120) ESJ 1202	
6401	Emily Bruns MWF 9:00am - 9:50am	Seats (Total: 50) ESJ 2208	
6501	Leo Shapiro TuTh 11:00am - 12:15pm	Seats (Total: 129) ESJ 1202	
6601	Bill Fagan TuTh 8:00am - 9:15am	Seats (Total: 50) ESJ 1224	

BSCI161 **Principles of Ecology and Evolution Lab**

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6104	Hans Lemke M 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6105	Hans Lemke M 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6110	Hans Lemke M 5:00pm - 7:50pm	Seats (Total: 24) HJP 3211	Lab

6111	Hans Lemke M 5:00pm - 7:50pm *This section is restricted to BioFire students.*	Seats (Total: 24) HJP 3217	Lab
6201	Hans Lemke Tu 8:00am - 10:50am	Seats (Total: 24) HJP 3211	Lab
6204	Hans Lemke Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6211	Hans Lemke Tu 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab
6304	Hans Lemke W 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6305	Hans Lemke W 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6307	Hans Lemke W 2:00pm - 4:50pm *This section is restricted to BioFire students.*	Seats (Total: 18) HJP 3211	Lab
6311	Hans Lemke W 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab
6401	Hans Lemke Th 8:00am - 10:50am	Seats (Total: 24) HJP 3211	Lab
6405	Hans Lemke Th 11:00am - 1:50pm	Seats (Total: 24) HJP 3217	Lab
6408	Hans Lemke Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6410	Hans Lemke Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 3211	Lab

BSCI161C Principles of Ecology and Evolution Lab

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

Restricted to new freshmen and new transfer students in Biological Science or Neuroscience. (Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

6108	Hans Lemke M 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6207	Hans Lemke Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab
6210	Hans Lemke Tu 5:00pm - 7:50pm	Seats (Total: 24) HJP 3211	Lab
6308	Hans Lemke W 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab
6404	Hans Lemke Th 11:00am - 1:50pm	Seats (Total: 24) HJP 3211	Lab
6407	Hans Lemke Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab

BSCI161S **Principles of Ecology and Evolution Lab**

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI160. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on ecological and evolutionary biology.

Restricted to College Park Scholars - Life Sciences. (Sponsoring Dept.: BSCI). Students must pay a $40 laboratory materials fee.

6107	Hans Lemke M 2:00pm - 4:50pm	Seats (Total: 24) HJP 3211	Lab
6208	Hans Lemke Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 3217	Lab

6411	Hans Lemke Th 5:00pm - 7:50pm	Seats (Total: 24) HJP 3217	Lab

BSCI170 **Principles of Molecular & Cellular Biology**

Credits: 3 Grading Method: Regular General Education: DSNL (if taken with BSCI171), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Recommended: For Science majors. Credit only granted for: BSCI105 or BSCI170. Formerly: BSCI105.

Basic principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI).

0101	Swarna Mohan MWF 9:00am - 9:50am	Seats (Total: 121) ESJ 1224
0201	Michael Keller MWF 11:00am - 11:50am	Seats (Total: 155) ESJ 2208
0301	Michael Keller MWF 12:00pm - 12:50pm	Seats (Total: 155) ESJ 2208
0401	Reid Compton TuTh 2:00pm - 3:15pm	Seats (Total: 138) ESJ 1224
FC01	Michael Keller MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection*	Seats (Total: 150) ESJ 2208
SEF1	James Sniezek Tu 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 50) PLS 1130

BSCI171 **Principles of Molecular & Cellular Biology Laboratory**

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: BSCI170. Recommended: For Science majors.

Basic laboratory principles of biology with special emphasis on cellular and molecular biology.

(Sponsoring Dept.: BSCI). Students must pay a $40.00 laboratory materials fee.

1021	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
1022	Swarna Mohan M 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
1031	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
1032	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
1033	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
1034	Swarna Mohan M 2:00pm - 4:50pm	Seats (Total: 24) HJP 1229	Lab
2021	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
2022	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
2023	Swarna Mohan Tu 11:00am - 1:50pm	Seats (Total: 24) HJP 1235	Lab
2032	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
2033	Swarna Mohan Tu 2:00pm - 4:50pm	Seats (Total: 24) HJP 1235	Lab
3021	Swarna Mohan W 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
3022	Swarna Mohan W 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
3031	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab

3032	Swarna Mohan W 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
3041	Swarna Mohan W 6:00pm - 8:50pm	Seats (Total: 24) HJP 1236	Lab
4021	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1236	Lab
4022	Swarna Mohan Th 11:00am - 1:50pm	Seats (Total: 24) HJP 1226	Lab
4031	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1236	Lab
4032	Swarna Mohan Th 2:00pm - 4:50pm	Seats (Total: 24) HJP 1226	Lab
4041	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 1226	Lab
4043	Swarna Mohan Th 6:00pm - 8:50pm	Seats (Total: 24) HJP 1235	Lab
FC1M	Swarna Mohan M 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1236	Lab
FC1N	Swarna Mohan M 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1226	Lab
FC1O	Swarna Mohan M 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1235	Lab
FC3N	Swarna Mohan W 6:00pm - 8:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1226	Lab

FC5A	Swarna Mohan F 8:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1236	Lab
FC5B	Swarna Mohan F 8:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1226	Lab
FC5C	Swarna Mohan F 8:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) HJP 1235	Lab
SEF1	Swarna Mohan Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) HJP 1236	Lab

BSCI201 **Human Anatomy and Physiology I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: LL | General Education: DSNL

Prerequisite: BSCI170 and BSCI171; or BSCI105; or students who have taken courses with comparable content may contact the department.

Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40 laboratory materials fee.

0101	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am M 1:00pm - 3:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	Lab
0102	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am M 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	Lab
0103	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0205	Lab
0104	Justicia Opoku-Edusei, Caitlin Fox MWF 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	Lab

0105	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
0106	Justicia Opoku-Edusei, Caitlin Fox MWF 10:00am - 10:50am W 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
0107	Justicia Opoku-Edusei, Caitlin Fox MWF 10:00am - 10:50am W 7:00pm - 9:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
0108	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
0110	Caitlin Fox, Justicia Opoku-Edusei MWF 10:00am - 10:50am M 4:00pm - 6:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
0112	Justicia Opoku-Edusei, Caitlin Fox MWF 10:00am - 10:50am Tu 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1101	Caitlin Fox, Nelson Bennett TuTh 12:30pm - 1:45pm M 9:00am - 11:50am	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1102	Nelson Bennett, Caitlin Fox TuTh 12:30pm - 1:45pm M 7:00pm - 9:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1103	Nelson Bennett, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1104	Caitlin Fox, Nelson Bennett TuTh 12:30pm - 1:45pm W 9:00am - 11:50am	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab

1105	Nelson Bennett, Caitlin Fox TuTh 12:30pm - 1:45pm W 1:00pm - 3:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1106	Nelson Bennett, Caitlin Fox TuTh 12:30pm - 1:45pm Th 8:00am - 10:50am	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1107	Caitlin Fox, Nelson Bennett TuTh 12:30pm - 1:45pm Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0205	 Lab
1108	Caitlin Fox, Nelson Bennett TuTh 12:30pm - 1:45pm M 9:00am - 11:50am	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1109	Caitlin Fox, Nelson Bennett TuTh 12:30pm - 1:45pm M 7:00pm - 9:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
1110	Nelson Bennett, Caitlin Fox TuTh 12:30pm - 1:45pm Tu 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0275	 Lab
SEF1	Nelson Bennett Tu 6:00pm - 8:50pm Th 6:00pm - 8:50pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) PLS 1119 BPS 0205	 Lab

BSCI202 **Human Anatomy and Physiology II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI201; or permission of CMNS-Biology department.

Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in Biological Sciences, Chemistry or Biochemistry.

(Sponsoring Dept.: BIOL). Students must pay a $40.00 laboratory materials fee.

0101	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0102	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0106	Tammatha O'Brien, Caitlin Fox TuTh 8:00am - 9:15am Tu 7:00pm - 9:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0110	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am W 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0112	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
0113	Caitlin Fox, Tammatha O'Brien TuTh 8:00am - 9:15am Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 0224 BPS 0275	 Lab
1101	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am M 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1105	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1106	Sara Lombardi, Caitlin Fox TuTh 9:30am - 10:45am Th 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1107	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 1:00pm - 3:50pm	Seats (Total: 24) ESJ 0224 BPS 0275	 Lab

1108	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am Th 5:00pm - 7:50pm	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab
1109	Caitlin Fox, Sara Lombardi TuTh 9:30am - 10:45am F 8:00am - 10:50am	Seats (Total: 24) ESJ 0224 BPS 0201	 Lab

BSCI207 **Principles of Biology III - Organismal Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And must have completed or be concurrently enrolled in CHEM131.

The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

(Sponsoring Dept.: BSCI).

0101	Karen Carleton MWF 9:00am - 9:50am	Seats (Total: 144) HJP 0226	
0201	Nicholas Fletcher MWF 2:00pm - 2:50pm	Seats (Total: 141) ESJ 2204	
0301	Nicholas Fletcher MWF 3:00pm - 3:50pm	Seats (Total: 140) ESJ 2204	

BSCI222 **Principles of Genetics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132; and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or must have completed BSCI105 or (BSCI170 and BSCI171); and two semesters of chemistry.

Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

(Sponsoring Dept.: BSCI).

2121	Kimberly Paczolt MWF 1:00pm - 1:50pm W 10:00am - 11:50am	Seats (Total: 23) BRB 1101 HJP 3233	 Discussion

2122	Kimberly Paczolt MWF 1:00pm - 1:50pm Th 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2124	Kimberly Paczolt MWF 1:00pm - 1:50pm Tu 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
2125	Kimberly Paczolt MWF 1:00pm - 1:50pm Tu 4:00pm - 5:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2129	Kimberly Paczolt MWF 1:00pm - 1:50pm W 10:00am - 11:50am	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
2130	Kimberly Paczolt MWF 1:00pm - 1:50pm W 3:00pm - 4:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2132	Kimberly Paczolt MWF 1:00pm - 1:50pm W 5:00pm - 6:50pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2137	Kimberly Paczolt MWF 1:00pm - 1:50pm Th 12:30pm - 2:20pm	Seats (Total: 23) BRB 1101 HJP 3233	Discussion
2141	Kimberly Paczolt MWF 1:00pm - 1:50pm Th 2:00pm - 3:50pm	Seats (Total: 23) BRB 1101 PLS 1121	Discussion
2211	Thomas Kocher TuTh 11:00am - 12:15pm W 2:00pm - 3:50pm	Seats (Total: 23) SKN 0200 EGR 3102	Discussion
2215	Thomas Kocher TuTh 11:00am - 12:15pm Tu 2:00pm - 3:50pm	Seats (Total: 23) SKN 0200 JMZ 1224	Discussion

2221	Thomas Kocher TuTh 11:00am - 12:15pm Tu 4:00pm - 5:50pm	Seats (Total: 23) SKN 0200 PLS 1158	Discussion
2231	Thomas Kocher TuTh 11:00am - 12:15pm Tu 6:00pm - 7:50pm	Seats (Total: 23) SKN 0200 PLS 1158	Discussion
2251	Thomas Kocher TuTh 11:00am - 12:15pm W 12:00pm - 1:50pm	Seats (Total: 23) SKN 0200 EGR 3102	Discussion
2261	Thomas Kocher TuTh 11:00am - 12:15pm W 6:00pm - 7:50pm	Seats (Total: 23) SKN 0200 PLS 1158	Discussion
2264	Thomas Kocher TuTh 11:00am - 12:15pm Th 8:00am - 9:50am	Seats (Total: 23) SKN 0200 EGR 2116	Discussion
2265	Thomas Kocher TuTh 11:00am - 12:15pm Th 2:00pm - 3:50pm	Seats (Total: 23) SKN 0200 PLS 1158	Discussion
2267	Thomas Kocher TuTh 11:00am - 12:15pm Th 4:00pm - 5:50pm	Seats (Total: 23) SKN 0200 PLS 1158	Discussion

BSCI223 **General Microbiology**

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: LL	General Education: DSNL, SCIS

Prerequisite: BSCI170 and BSCI171; or BSCI105. Credit only granted for: BSCI223 or BSCI283.

Fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic microbiology. Applications of microbiology to medicine, the food industry and biotechnology.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1101	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab

1106	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1121	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1126	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1201	John Buchner TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1206	John Buchner TuTh 11:00am - 11:50am MW 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1221	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1225	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1301	John Buchner TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab
1306	John Buchner TuTh 11:00am - 11:50am MW 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
1321	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1201	Lab

1325	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1205	Lab
1326	John Buchner TuTh 11:00am - 11:50am TuTh 2:00pm - 3:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
2105	John Buchner TuTh 11:00am - 11:50am MW 10:00am - 11:50am	Seats (Total: 20) BRB 1101 MCB 1205	Lab
2125	John Buchner TuTh 11:00am - 11:50am TuTh 9:00am - 10:50am	Seats (Total: 20) BRB 1101 MCB 1205	Lab
2226	John Buchner TuTh 11:00am - 11:50am TuTh 12:00pm - 1:50pm	Seats (Total: 20) BRB 1101 MCB 1206	Lab
SEF1	Erin Tran, John Buchner TuTh 6:00pm - 6:50pm TuTh 7:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 20) MCB 1207 MCB 1201	Lab

BSCI238D **Special Topics in Biology Student Initiated Courses; A Primer on Research Kits in the Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Student Initiated Course (STIC) in Biology. Course will be student initiated and taught under close supervision of faculty mentor. Student instructor and faculty mentor must generate proposal and have approval of the Biological Sciences Program to offer a BSCI238 STIC. BSCI238 cannot be applied to the degree requirements of any biological sciences major.

Prerequisites: BSCI171 and BSCI222. This course will combat the "Kit Mentality" by explaing the "whys" behind the most widely used technologies in the biological research field. The student facilitator is Kevin Tu.

0101	Kevin Tu, Jonathan Dinman Tu 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 20) HBK 0108 ONLINE	

BSCI238F **Special Topics in Biology Student Initiated Courses; Introduction to Python Programming for Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Student Initiated Course (STIC) in Biology. Course will be student initiated and taught under close supervision of faculty mentor. Student instructor and faculty mentor must generate proposal and have approval of the Biological Sciences Program to offer a BSCI238 STIC. BSCI238 cannot be applied to the degree requirements of any biological sciences major.

The student facilitators are Rakshita Balaji and Garmani Thein. This course is for the undergraduate life sciences student with little-to-no programming experience who is looking to start building a strong computational foundation starting with Python, and explore how programming is used in the broader context of the life sciences. healthcare, and clinical research.

0101	Daniel Butts, Rakshita Balaji, Garmani Thein	Seats (Total: 24)
	F 3:00pm - 5:00pm	PLS 1115

BSCI279 **Supplemental Study; Supplemental Study in Biology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI279P **Supplemental Study; Undergraduate Teaching Fellows Professional Development Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Prerequisite: permission of department.

Contact department for information to register for this course.

BSCI279Q **Supplemental Study; Readings in Neurophysiology**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: BIOL).

0101	Daniel Butts, Ricardo Araneda	Seats (Total: 13)
	Contact instructor or department for details.	

BSCI279R **Supplemental Study; Undergraduate Research Rotation**

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI279T **Supplemental Study; BSCI Learning Assistants**

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

Contact department for information to register for this course.

BSCI279W **Supplemental Study; Problem Solving for Molecular Courses**

Credits: 1 Grading Method: Regular

Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

"A Feeling for the Molecule and how biologists can approach and appreciate molecular thinking. This is a supplemental study course for introductory organic chemistry to support biology majors; we will develop strategies for problem-solving that will be useful for other upper-level biological science courses.

0101	Louisa Wu Tu 3:30pm - 5:00pm	Seats (Total: 20) Location: TBA	

BSCI283 **Principles of Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL, SCIS

Prerequisite: BSCI222. Restriction: Must be in a major within Biological Sciences; or permission of CMNS-Cell Biology & Molecular Genetics. Credit only granted for: BSCI223 or BSCI283. Additional information: Priority given to BSCI, BCHM and CHEM majors.

Introduction to microorganisms designed for science majors. Genetic principles underlying microbial abilities; microbial structure-function relationships; metabolism, physiology, and ecology of microorganisms; interactions between microorganisms (including pathogens) and their hosts.

(Sponsoring Dept.: CBMG). Students must pay a $40.00 laboratory materials fee.

1205	Wade Winkler, Daniel Stein MW 10:00am - 10:50am MW 12:00pm - 1:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

1305	Wade Winkler, Daniel Stein MW 10:00am - 10:50am MW 2:00pm - 3:50pm	Seats (Total: 20) ESJ 1309 MCB 1205	 Lab

BSCI289 **Off-Campus Internship**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Elective credit for formally established off-campus research internship. Permission of Director of Outreach required.

(Sponsoring Dept.: BSCI). Provides credit for off-campus research internships. This credit counts as elective toward graduation, but does not satisfy any Biological Sciences degree requirements (For information about research credit that does count toward Biological Sciences contact the Biological Sciences Program, room 1322 Symons Hall). The off-campus internship credit requires that a contract form be filed with the Assistant Dean for Science Education Initiatives, Room 1313 Symons Hall, prior to the internship. The contract must be finalized and signed by the research supervisor at the end of the semester before credit will be awarded.

1110	Katerina Thompson Contact instructor or department for details.	Seats (Total: 20)
1111	Katerina Thompson Contact instructor or department for details.	Seats (Total: 40)

BSCI300 **Strategies for Success**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in USG-Universities at Shady Grove; and must be in Biological Sciences: Physiology & Neurobiology program. Credit only granted for: BSCI300 or BSCI339R. Formerly: BSCI339R.

Students often face an increased emphasis on critical thinking, pressure from a typically higher credit hour load, and a faster pace of exposure to new material when moving from lower- to upper-level coursework. The Biological Sciences program designed this course to help all transfer students make successful transitions, both academically and socially, to the University of Maryland at Shady Grove.

ESG1	Annie Foster Ahmed F 2:00pm - 2:50pm Class time/details on ELMs *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 50) BLD4 4335 ONLINE

BSCI329 **Instructional Assistance Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course- specific basis and approved by the College Undergraduate Program Committee.

Prerequiste: permission of department. (Sponsoring Dept.: BIOL). Credit cannot be applied to the requirements of any Biological Sciences Major.

1016	Hilary Bierman Contact instructor or department for details.	Seats (Total: 10)
1020	Gerald Borgia Contact instructor or department for details.	Seats (Total: 5)
1033	Chan Lin Contact instructor or department for details.	Seats (Total: 10)
1250	Justicia Opoku-Edusei Contact instructor or department for details.	Seats (Total: 20)
ESG1	Hadiya Woodham Contact instructor or department for details. *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 8)
ESG2	David Sandstrom Contact instructor or department for details. *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 5)

BSCI330 **Cell Biology and Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept.: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV, and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Sergei Sukharev, Carmen Cantemir-Stone MWF 9:00am - 9:50am M 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	 Lab

0102	Carmen Cantemir-Stone, Sergei Sukharev MWF 9:00am - 9:50am M 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0104	Sergei Sukharev, Carmen Cantemir-Stone MWF 9:00am - 9:50am Tu 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0105	Sergei Sukharev, Carmen Cantemir-Stone MWF 9:00am - 9:50am W 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0108	Carmen Cantemir-Stone, Sergei Sukharev MWF 9:00am - 9:50am Th 8:00am - 10:50am	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0109	Carmen Cantemir-Stone, Sergei Sukharev MWF 9:00am - 9:50am Th 11:00am - 1:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0111	Sergei Sukharev, Carmen Cantemir-Stone MWF 9:00am - 9:50am M 6:00pm - 8:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
0114	Carmen Cantemir-Stone, Sergei Sukharev MWF 9:00am - 9:50am Th 2:00pm - 4:50pm	Seats (Total: 23) BRB 1101 BPS 0207	Lab
0116	Sergei Sukharev, Carmen Cantemir-Stone MWF 9:00am - 9:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) BRB 1101 BPS 0207	Lab
1101	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 2:00pm - 3:15pm M 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	Lab
1102	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 2:00pm - 3:15pm M 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	Lab

1103	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 2:00pm - 3:15pm Tu 8:30am - 11:20am	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1104	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 2:00pm - 3:15pm Th 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1105	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 2:00pm - 3:15pm W 11:00am - 1:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1106	Kenneth Frauwirth, Carmen Cantemir-Stone TuTh 2:00pm - 3:15pm W 2:00pm - 4:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1107	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 2:00pm - 3:15pm M 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
1109	Carmen Cantemir-Stone, Kenneth Frauwirth TuTh 2:00pm - 3:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) ESJ 0202 BPS 0213	 Lab
ESG1	Hadiya Woodham, David Sandstrom Tu 12:00pm - 1:15pm Class time/details on ELMs Tu 2:00pm - 5:00pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 16) BLD4 4308 ONLINE BLD4 3322	 Lab
ESG2	Hadiya Woodham, David Sandstrom Tu 12:00pm - 1:15pm Class time/details on ELMs W 2:00pm - 5:00pm *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 24) BLD4 4308 ONLINE BLD4 3322	 Lab

SEF1	Elizabeth Read-Connole Tu 6:30pm - 9:30pm Th 6:30pm - 9:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) BPS 1236 BPS 0207	 Lab

BSCI330H **Cell Biology and Physiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132. And minimum grade of C- in BSCI170 and BSCI171; or minimum grade of C- in BSCI105. Restriction: Must not have completed BSCI230. Credit only granted for: BSCI230 or BSCI330. Formerly: BSCI230.

Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

(Sponsoring Dept.: BIOL). Specialization Areas: PHNB, CEBG, MICB, ECEV and GENB. Restricted to students in the Integrated Life Science Honors program or permission of the instructor. Students must pay a $40.00 laboratory materials fee.

0101	Sabrina Kramer, Carmen Cantemir-Stone MWF 11:00am - 11:50am Tu 2:00pm - 4:50pm	Seats (Total: 24) TWS 0310 BPS 0213	 Lab
0102	Carmen Cantemir-Stone, Sabrina Kramer MWF 11:00am - 11:50am W 2:00pm - 4:50pm	Seats (Total: 24) TWS 0310 BPS 0207	 Lab
0103	Sabrina Kramer, Carmen Cantemir-Stone MWF 11:00am - 11:50am W 6:00pm - 8:50pm	Seats (Total: 24) TWS 0310 BPS 0213	 Lab
0104	Carmen Cantemir-Stone, Sabrina Kramer MWF 11:00am - 11:50am Th 2:00pm - 4:50pm	Seats (Total: 24) TWS 0310 BPS 0213	 Lab

BSCI333 **Principles of Paleontology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL102; or (BSCI207 or BSCI392); or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students. Cross-listed with: GEOL331. Credit only granted for: GEOL331 or BSCI333.

A review of the theory, principles, and applications of Paleontology. A systematic overview of the morphology, evolution, and relationships of the major fossil-producing taxa.

0101	Thomas Holtz, John Merck	Seats (Total: 30)	
	TuTh 9:30am - 10:45am	PLS 1111	
	Th 2:00pm - 5:00pm	GEO 2107	Lab

BSCI338B **Special Topics in Biology; Marine Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: BSCI160. (Sponsoring Dept: BIOL). Acceptable towards Biological Sciences Specialization Areas: GENB and ECEV.

0101	Marjorie Reaka	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	BPS 1238

BSCI338D **Special Topics in Biology; Complexity of Cancer**

Credits: 3 Grading Method: Regular

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338E **Special Topics in Biology; Neuroethology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisites: BSCI160, BSCI161, and BSCI353. (Sponsoring Dept.: BIOL). Applicable towards Biological Sciences Specialization Areas: GENB and PHNB.

0101	Catherine Carr	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	BPS 0283

BSCI338I **Special Topics in Biology; Medical Biotechnology & Drug Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338J **Special Topics in Biology; Medical Exploration of HIV/AIDS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338M **Special Topics in Biology; Human Health and Disease: A Clinical Approach**

Credits: 3 Grading Method: Regular

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept.: BIOL).

Contact department for information to register for this course.

BSCI338N **Special Topics in Biology; Hormones and Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV, GENB (Cell Biology category), and PHNB. Cross-listing with PSYC489G. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	PLS 1119

BSCI338Z **Special Topics in Biology; Field Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, mini-courses and other special instruction in various biological subjects.

(Sponsoring Dept: BIOL). Cannot be used as credit toward the major requirements for any Biological Sciences major. Contact the Biology Department Undergraduate Office for course information.

Contact department for information to register for this course.

BSCI339C **Selected Topics in Biology; Cell Biology Lab**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisites: BSCI420. Credit will be granted for BSCI339C or BSCI421. (Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: PHNB, CEBG, and GENB. Students must pay a $40.00 laboratory materials fee.

Contact department for information to register for this course.

BSCI339S **Selected Topics in Biology; Biodiversty, Natural History and Culture of the American Caribbean**

(Perm req)

Credits: 3 Grading Method: Regular

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Prerequisite: C- or better in BSCI160 or comparable course. (Sponsoring Dept.: BIOL.) Acceptable towards Biology Sciences Specializations ECEV and GENB (Ecology, Behavior, and Organismal Area). This travel-study course to Puerto Rico and the U.S. Virgin Islands will focus on the biodiversity, natural history, culture, and history of these islands. Students will do research prior to the trip on the animals, plants and ecosystems we will encounter as well as the impact of climate change and tourism on the land and people. They will also complete a book project focused on culture and/or history. Reflective projects will be due once we return to College Park. The trip will last 18 days and take place in the late summer. There will be several pre-trip orientation meetings in the spring and early summer and post-trip meetings in the fall. Students are selected by application and must pay a program fee to cover transportation, lodging, food, and activities. For more information contact Dr. Beth Parent (parent@umd.edu) or Jimmy McClellan (jamesmcc@umd.edu).

0101	Beth Parent	Seats (Total: 20)
	Contact instructor or department for details.	

BSCI339Y **Selected Topics in Biology; Invertebrate Behavioral Physiology Research Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Credit cannot be applied to the requirements of any Biological Sciences Major.

Contact department for information to register for this course.

BSCI339Z **Selected Topics in Biology; Cell Death and Cancer Research Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lectures, seminars, and other selected instruction courses in various biological subject matter.

Credit cannot be applied to the requirements of any Biological Sciences Major.

ESG1	Hadiya Woodham	Seats (Total: 8)
	Th 2:00pm - 5:00pm	BLD4 3322
	Registration is restricted to Biological Sciences - Shady Grove majors.	

BSCI348 **Special Topics in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). May be repeated, but only 3 credits may be applied to major requirements.

Contact department for information to register for this course.

BSCI348A **Special Topics in Cell Biology and Molecular Genetics; Microbiology Undergraduate Teaching Practicum**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). Students will act as Undergraduate Teaching Assistants for BSCI223. Prerequisite: A or B in BSCI223 and permission of instructor. Students must be available for one of the BSCI223 lab periods. Students interested in this teaching/leadership opportunity should contact Dr. John Buchner for application information: This course is applicable for the Enrichment credits required of all Biological Sciences students in majors with 0404 codes. For others this is elective credit. Formerly: BSCI348U.

0101	John Buchner	Seats (Total: 25)
	Contact instructor or department for details.	
	Contact instructor or department for details.	

BSCI348R **Special Topics in Cell Biology and Molecular Genetics; Microbiology Internship**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI348 may be applied to the BSCI major.

(Sponsoring Dept.: CBMG). This course is an opportunity for students interested in microbiology to pursue a research project in an off-campus lab. The student must see the instructor and complete an information sheet found on the web site, prior to enrolling in the course.

0101	David Straney	Seats (Total: 8)
	Contact instructor or department for details.	

BSCI353 **Principles of Neuroscience**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (BSCI207, BSCI330). Corequisite: PHYS122, PHYS142, or PHYS132. Credit only granted for: BSCI353 or NEUR306.

Principles of nervous system function, ranging from molecular and cellular basis of neuron function through nervous system integration.

(Sponsoring Dept.: BIOL). Acceptable toward Bilogical Sciences Specialization Areas: CEBG (Cell Biology), Development, Physiology), and PHNB.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 64) BPS 1250
0102	Melissa Caras TuTh 12:30pm - 1:45pm	Seats (Total: 50) PLS 1140
SEF1	Chan Lin F 6:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 25) BPS 0283

BSCI357 Neurobiology of Chemosensory Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI353 or NEUR306. Credit only granted for: BSCI339D, BSCI357, BIOL708Q, or NACS728J. Formerly: BSCI339D.

Chemosensation is essential for all forms of life, orchestrating several physiological processes, such as feeding, sexual behaviors, and body homeostasis. This course will review the function of chemosensory systems, including olfaction, gustatory and central chemoreception, among others. Through lectures and discussion of papers, we will examine the cell biology, systems neuroscience, and evolutionary aspects in these chemosensory systems.

(Sponsoring Dept.: BIOL). Applicable towards Biological Sciences Specialization Areas: GENB and PHNB.

0101	Ricardo Araneda MW 2:00pm - 3:15pm	Seats (Total: 10) BPS 1208

BSCI360 Principles of Animal Behavior

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. And BSCI170 and BSCI171; or BSCI105. And BSCI222.

Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: PHNB, and GENB.

0101	Gerald Borgia MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) ONLINE PLS 1162	 Discussion
0102	Gerald Borgia MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) ONLINE PLS 1162	 Discussion

BSCI361 **Principles of Ecology**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI160 and BSCI161; or BSCI106. And (MATH130, MATH136, or MATH140).

Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB.

0101	Sarah Lee TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 25) PLS 1130 PLS 1119	 Discussion
0102	Sarah Lee TuTh 11:00am - 12:15pm W 3:00pm - 3:50pm	Seats (Total: 25) PLS 1130 PLS 1119	 Discussion
0103	Sarah Lee TuTh 11:00am - 12:15pm W 4:00pm - 4:50pm	Seats (Total: 25) PLS 1130 PLS 1119	 Discussion

BSCI363 **The Biology of Conservation and Extinction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI361.

Ecology, evolutionary biology, and paleontology will be applied to the study of conservation, species invasions, and extinction.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal).

0101	Sarah Lee	Seats (Total: 35)	
	MWF 11:00am - 11:50am	ESJ B0320	

BSCI370 **Principles of Evolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI160, BSCI161, and BSCI222 .

Understanding evolutionary processes in a natural and human environment, including adaptation; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

(Sponsoring Dept.: BIOL) Applies to Biological Sciences Specialization Areas: PHNB, GENB, and ECEV.

0101	Carlos Machado	Seats (Total: 100)	
	TuTh 9:30am - 10:45am	PLS 1140	

BSCI374 **Mathematical Modeling in Biology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: HLSC374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 15)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BSCI374H **Mathematical Modeling in Biology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: HLSC374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

BSCI378H **Cell Biology and Molecular Genetics Department Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept.: CBMG). Restricted to students participating in the CBMG Departmental Honors Program. If you are interested in a CBMG Departmental Honors Research experience, please see the CBMG department web site for detailed information.

Click here for more course information.

0101	Louisa Wu	Seats (Total: 19)	
	F 2:00pm - 2:50pm	HJP 1216	

BSCI379G **Cell Biology and Molecular Genetics Department Research; Research in Cell Biology and Molecular Genetics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Prequisite: permission of department. See CBMG department Undergraduate office. (Sponsoring Dept: CBMG).

Contact department for information to register for this course.

BSCI379H **Cell Biology and Molecular Genetics Department Honors Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

Corequisite: BSCI378H. Restricted to students participating in the CBMG Departmental Honors Program. (Sponsoring Dept.: CBMG).

Click here for more course information.

Contact department for information to register for this course.

BSCI379L **Cell Biology and Molecular Genetics Department Research; Lab Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a faculty member of the department.

Any combination of 3 credits of BSCI379G, BSCI379L, and BSCI379H can be used to satisfy the enrichment requirement in CEBG, ECEV, MICB, or PHNB or an upper-level elective in GENB. Students must have successfully completed at least one semester in a Cell Biology & Molecular Genetics department research lab before getting permission to take BSCI379L in the same lab. Students completing at least 4 credits of laboratory research including at least one semester taking BSCI379L may substitute this experience for one of the two upper-level laboratory courses required to complete any BSCI major.

Contact department for information to register for this course.

BSCI381 **Molecular Neuroethology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222; and minimum grade of C- in BSCI353 or NEUR306. Credit only granted for: BSCI339W, BSCI381, or BIOL709W. Formerly: BSCI339W.

The brain generates a tremendous variety of behaviors, but how it achieves these feats remains largely unknown. Genetics and molecular tools yield fundamental insights into how the brain senses its environment and determines an appropriate course of action. This course will describe modern genetic manipulations (eg, CRISPR editing) and neuronal interventions (e. g., optogenetics), and discuss the quantification of behavioral outputs. Course consists of lectures plus readings and group discussions of primary scientific literature.

(Sponsoring Dept.: BIOL). Acceptable towards Biological Sciences Specialization Areas: GENB (Genetics & Evolution), CEBG, and PHNB.

0101	Scott Juntti	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	BPS 0283

BSCI389 **Entomology Department Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389H **Entomology Department Research; Honors Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

(Sponsoring Dept.: ENTM).

Contact department for information to register for this course.

BSCI389L **Entomology Department Research; Lab Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Credit to be determined by the department. A maximum of 8 credits of any version of BSCI389 can be applied to one or more undergraduate degrees. Any research credits completed beyond the first 8 will be included in the total earned credits and factored into the GPA but not applied to any undergraduate degree.

Contact department for information to register for this course.

BSCI398H **Biology Department Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Required seminar for all students participating in departmental honors research program.

(Sponsoring Dept. :BIOL).

0101	Alexandra Bely	Seats (Total: 35)
	M 4:00pm - 4:50pm	BPS 1208

BSCI399 **Biology Department Research; Biology Department Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

(Sponsoring Dept: BIOL)

Contact department for information to register for this course.

BSCI399H **Biology Department Honors Research**

(Perm req)

Credits: 1-2 Grading Method: Regular

A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

(Sponsoring Dept: BIOL).

Contact department for information to register for this course.

BSCI399L **Biology Department Research; Biology Lab Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

Contact department for information to register for this course.

BSCI404 **Cell Biology from a Biophysical Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330. Recommended: PHYS121 and PHYS122; or completion of PHYS131 and PHYS132 recommended. Jointly offered with BIOL704, BIPH704. Credit only granted for: BSCI338O, BSCI404, BIOL704, BIOL708O, or BIPH704. Formerly: BSCI338O.

An approach to cell biology by focusing on mechanisms and unifying physical paradigms. It will not assume a great deal of factual biological knowledge, but will expect a background that prepares students to think mechanistically and quantitatively.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Cell Biology), GENB (Cell Biology, Development, Physiology), and PHNB.

0101	Sergei Sukharev	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	PLS 1113

BSCI405 **Population and Evolutionary Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222; and 1 course with a minimum grade of C- from (MATH131, MATH136, MATH141). Jointly offered w ith BIOL709. Credit only granted for: BSCI405, BSCI339J, or BIOL709C. Formerly: BSCI339J.

Genetic variation within a population provides the basis for future evolution as well as a record of past evolution. The genomics revolution provides data on this variation that, together with mathematical models, allow us to read this record to reconstruct evolutionary trajectories. Examples will focus on hominin and pathogen evolution. In the lab, students will use models to explore how genetic variation (allele frequencies) changes over time and space.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG (Genetics), ECEV, and (Genetics & Evolution). Students must pay a $40.00 laboratory materials fee.

0101	Philip Johnson MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 20) HBK 0123 PLS 1121	 Lab

BSCI410 Molecular Genetics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222. And must have completed CHEM233; or (CHEM231 and CHEM232).

An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences specialization areas: PHNB, CEBG, GENB and ECEV.

0101	Stephen Mount TuTh 11:00am - 12:15pm	Seats (Total: 140) BPS 1250	

BSCI411 Bioinformatics and Integrated Genomics

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222. Recommended: BSCI410. Credit only granted for: BSCI380 or BSCI411. Formerly: BSCI380.

Computational methods for the study of biological data. Pairwise and multiple sequence alignment, genome assembly and annotation, RNAseq analysis, and structural bioinformatics. Introduction to UNIX, Python, and R in the context of biological sequence data. Previous computational experience is not necessary.

(Sponsoring Dept.: CBMG). Acceptable to Biological Specialization Areas: CEBG, MICB, and GENB. Studets must pay a $40.00 Laboratory Materials fee.

0101	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab
0102	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab

BSCI411H Bioinformatics and Integrated Genomics

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI222. Recommended: BSCI410. Credit only granted for: BSCI380 or BSCI411. Formerly: BSCI380.

Computational methods for the study of biological data. Pairwise and multiple sequence alignment, genome assembly and annotation, RNAseq analysis, and structural bioinformatics. Introduction to UNIX, Python, and R in the context of biological sequence data. Previous computational experience is not necessary.

(Sponsoring Dept.: CBMG). Acceptable to Biological Specialization Areas: CEBG, MICB, and GENB. Studets must pay a $40.00 Laboratory Materials fee.

0101	Brantley Hall, Brian Pierce MWF 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab
0102	Brian Pierce, Brantley Hall MWF 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 25) MCB 1207 PLS 1121	 Lab

BSCI414 Recombinant DNA Laboratory

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222.

An advanced course offering hands-on experience in performing recombinant DNA experiments. All current molecular biology techniques used for cloning prokaryotic genes, analyzing the gene products, and modifying the genes will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: PHNB, MICB, CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Caren Chang TuTh 2:00pm - 5:00pm	Seats (Total: 18) MCB 1135	 Lab

BSCI415 Molecular Genetics Laboratory

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in BSCI410. Restriction: Junior standing or higher. Credit only granted for: BSCI348G or BSCI415. Formerly: BSCI348G.

Problem solving laboratory organized around extended projects that employ different approaches toward linking gene and function.

(Sponsoring Dept.: CBMG). Specialization Areas: CEBG and GENB. Students must pay a $40.00 laboratory materials fee.

0101	David Straney	Seats (Total: 20)	
	TuTh 2:00pm - 5:00pm	MCB 3123	Lab

BSCI416 **Human Genetics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Minimum grade of C- in BSCI410. Recommended: BSCI330.

Approaches to human genetics and applications to biology and medicine focusing on specific human genetic topics using primary research papers as the main resource.

(Sponsoring Dept.: CBMG).

Contact department for information to register for this course.

BSCI420 **Cell Biology Lectures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, BSCI222, CHEM231, and CHEM232. Credit only granted for: BSCI420 or BSCI421.

Molecular and biochemical bases of cellular organization and function in eukaryotes.

(Sponsoring Dept: CBMG). Specialization Areas: PHNB, CEBG, and GENB. Cross-listed with BSCI420. Credit only granted for BSCI420 or CBMG688C.

0101	Norma Andrews	Seats (Total: 70)	
	TuTh 12:30pm - 1:45pm	MCB 1207	

BSCI422 **Principles of Immunology**

Credits: 3 Grading Method: Regular

Prerequisite: BSCI222. Recommended: BSCI330; and (BSCI223 or BSCI283). Restriction: Junior standing or higher.

The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

ESG1	Gregory Simon Tu 11:00am - 12:15pm Class time/details on ELMs *Registration is restricted to Biological Sciences-Shady Grove majors.*	Seats (Total: 50) BLD4 4335 ONLINE	
SEF1	Sandra Fox-Moon W 6:00pm - 9:00pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 12) MCB 1207	

BSCI424 **Pathogenic Microbiology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI223 or BSCI283.

The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: MICB and GENB (Category 2). Students must pay a $40.00 laboratory materials fee.

0101	Volker Briken TuTh 11:00am - 11:50am MW 11:00am - 12:50pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab
0102	Volker Briken TuTh 11:00am - 11:50am MW 1:00pm - 2:50pm	Seats (Total: 18) MCB 1207 MCB 1143	 Lab

BSCI430 **Developmental Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330.

Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: CEBG(Cell Biology), ECEV, GENB (Cell Biology, Development, Physiology) and PHNB.

0101	William Jeffery TuTh 2:00pm - 3:15pm	Seats (Total: 35) PLS 1130	

BSCI433 **Biology of Cancer**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222 and BSCI330; or permission of CMNS-Biological Sciences UG Program.

Causes and consequences of neoplastic transformations at the biochemical and cellular levels.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences specialization areas: CEBG, GENB (Cell Biology, Development, Physiology), and PHNB.

0101	Beth Parent	Seats (Total: 48)
	TuTh 9:30am - 10:45am	PLS 1130

BSCI437 General Virology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222; or permission of CMNS-Biological Sciences UG Program. Restriction: Junior standing or higher.

Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

(Sponsoring Dept.: CBMG). Acceptable toward Biological Sciences Specialization Areas: GENB, MICB and CEBG.

0101	Margaret Scull	Seats (Total: 60)
	MWF 11:00am - 11:50am	MCB 1207

BSCI443 Microbial Physiology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI223 or BSCI283; and minimum grade of C- in BCHM461 or BCHM462.

Microbial cellular and population growth. Fermentation metabolism, physiology of anaerobiosis, and energy conservation and transformation in bacterial membranes. Efficiency of energy utilization for growth. Membrane structure and transport. Bacterial motility and chemotaxis. Regulation of bacterial chromosome replication, RNA and protein synthesis. Control of metabolic pathways. Bacterial stress responses. Antimicrobials.

(Sponsoring Dept.: CBMG).

0101	Jiqiang Ling	Seats (Total: 50)
	TuTh 9:30am - 10:45am	MCB 1207

BSCI447 General Endocrinology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI330, CHEM241, and CHEM242.

Functions and dysfunctions of the endocrine system with special reference to mammals.

(Sponsoring DEPT.: BIOL). Specialization Areas: PHNB and GENB.

0101	Meredith Bohannon MWF 12:00pm - 12:50pm	Seats (Total: 70) ESJ 2212

BSCI450 Mammalian Systems Physiology

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI330; and minimum grade of C- in CHEM233 or both CHEM231 and CHEM232. Credit only granted for: BSCI338L, BSCI440 or BSCI450.

A study of the cardiovascular, hemopoietic, gastrointestinal, renal, and respiratory systems. Chemical and endocrine regulation of physiological functions in mammals.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and PHNB.

0101	Joshua Singer MWF 3:00pm - 3:50pm	Seats (Total: 240) BRB 1101
ESG1	Lorin Milescu, David Sandstrom MW 11:00am - 12:15pm	Seats (Total: 50) BLD4 4321

BSCI451 Mammalian Systems Physiology Laboratory

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed with a minimum of C- or be concurrently enrolled in either BSCI440 or BSCI450. Credit only granted for: BSCI441 or BSCI451. Formerly: BSCI441.

Laboratory exercises in experimental mammalian physiology.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: GENB and PHNB. Students must pay a $40.00 $40.00 laboratory materials fee.

0101	Carmen Cantemir-Stone F 12:00pm - 12:50pm M 3:00pm - 6:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab

0102	Carmen Cantemir-Stone F 12:00pm - 12:50pm Tu 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0103	Carmen Cantemir-Stone F 12:00pm - 12:50pm W 3:00pm - 6:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab
0104	Carmen Cantemir-Stone F 12:00pm - 12:50pm Th 2:00pm - 5:50pm	Seats (Total: 20) BPS 1243 PLS 1181	 Lab

BSCI455 **Neuroscience Laboratory**

Credits: 3 Grading Method: Regular

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: NEUR405. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

Students must pay a $40.00 laboratory materials fee.

0102	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 1:00pm - 5:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0104	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab

BSCI464 **Microbial Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: BSCI223 or BSCI283; and (CHEM271 or CHEM277); or permission of the instructor.

Interaction of microorganisms with the environment, other microorganisms and with higher organisms. Roles of microorganisms in the biosphere. Microorganisms and current environmental problems.

(Sponsoring Dept: CBMG).

0101	Charles Delwiche MW 3:00pm - 4:15pm	Seats (Total: 25) MCB 1123	

BSCI467 **Freshwater Biology**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: BSCI160.

Biology and ecology of freshwater invertebrates in lotic and lentic habitats, their adaptation to aquatic life, their function in aquatic ecosystems, and their relationship to environmental deterioration. Laboratory will include field trips, demonstrations, and identifications.

(Sponsoring Dept.: ENTM). Specialization Areas: ECEV and GENB. Students must pay a $40.00 laboratory materials fee.

0101	Bill Lamp MWF 1:00pm - 1:50pm W 2:00pm - 4:50pm	Seats (Total: 24) CCC 1100 PLS 1161	 Lab
0102	Bill Lamp MWF 1:00pm - 1:50pm Th 2:00pm - 4:50pm	Seats (Total: 24) CCC 1100 PLS 1161	 Lab

BSCI471 **Molecular Evolution**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI222; or permission of CMNS-Biology department.

Patterns of DNA sequence variation within and between species, caused by nucleotide changes and the movement of transposable elements. Theories of molecular evolution, such as the neutral theory. Molecular clock hypothesis: its importance as a practical empirical tool in molecular genetics and systematics and its theoretical foundation.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences Specialization Areas: ECEV and GENB (Genetics & Evolution).

0101	Michael Cummings Class time/details on ELMs	Seats (Total: 25) ONLINE	

BSCI475 **Sexual Selection in Nature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI207; or permission of instructor. Recommended: BSCI360 or BSCI370. Jointly offered with BIOL708. Credit only granted for: BSCI338X, BSCI475, or BIOL708X. Formerly: BSCI338X.

Sexual selection drives some of the most spectacular, if not bizarre, traits in nature. We will explore how organisms select and compete for mates and fertilization success, and how this powerful and pervasive evolutionary force shapes sexual traits and regulates species boundaries. We will focus on the key theories in the field and discuss recent and classic research papers. This is a student-directed class: course topics and materials will be selected based on student interests and involvement. On occasion, experts in the field will be invited to class to discuss their research.

(Sponsoring Dept.: BIOL). Acceptable toward Biological Sciences speciali zation areas: ECEV and GENB (Ecology, Behavioral & Organismal).

0101	Heidi Fisher	Seats (Total: 27)	
	TuTh 9:30am - 10:45am	ONLINE	

BSCI481 **Insect Diversity and Classification**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI337.

The techniques of collecting insects in the field and their classification into the latest hierarchical scheme. Field trips will visit habitats throughout the state. An insect collection is required.

Students must pay a $40.00 laboratory materials fee.

0101	Jeffrey Shultz	Seats (Total: 30)	
	F 10:00am - 10:50am	PLS 1117	
	M 10:00am - 1:00pm	PLS 1161	Lab
	W 10:00am - 1:00pm	PLS 1161	Lab

BSCI483 **Insects, Pathogens, and Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI207.

Mosquito- and tick-borne disease transmission poses significant challenges to human health and well-being globally, and is on the rise in North America. Arthropod parasites and the pathogens they transmit to humans and animals will be introduced, and the public health significance of these arthropods will be examined. The ecology and behavior of vectors in relation to disease transmission will be emphasized.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal category).

0101	Megan Fritz MW 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 24) PLS 1130 PLS 1161	 Discussion
0102	Megan Fritz MW 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 24) PLS 1130 PLS 1161	 Discussion

BSCI494 **Animal-Plant Interactions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106.

Theoretical, conceptual and applied aspects of evolutionary and ecological interactions between plants and animals. This course gives an overview of major ideas, historical controversies, and current research on animal-plant relationships. We will explore the mechanisms and evolution of plant defenses and animal counter-adaptations, behavioral ecology and interactions across trophic levels, the role of microbial communities in mediating interactions, and how these interactions color human experience through food and medicine. The course will have a blended lecture/discussion format and will include field walks to collect herbivory data and observe animal-plant interactions.

(Sponsoring Dept.: ENTM). Acceptable toward Biological Specialization Areas: ECEV and GENB (Ecology, Behavior & Organismal category).

0101	Karin Burghardt TuTh 11:00am - 12:15pm	Seats (Total: 25) AJC 2119

BSCV CIVICUS Fall 2022

BSCV181 **Civicus Student and the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Freshman standing; and must be in the Civicus program.

Knowledge and skills designed to utilize CIVICUS to enhance the college experience and preparation for civic engagement.

0101	Korey Rothman M 2:00pm - 3:45pm	Seats (Total: 20) ASY 3203
0201	Korey Rothman M 4:00pm - 5:45pm	Seats (Total: 26) ASY 3203

BSCV191 **Introduction to Civicus**

Credits: 3 Grading Method: Regular

Restriction: Must be in the CIVICUS Program.

Students will explore a range of ways to think about what it means to fully engage in communities, conduct research and scholarly inquiry to explore pressing contemporary problems, consider the roots of social issues, and explore ways to create positive social change on a school, local, state, and national level.

0101	Julie Randolph TuTh 9:30am - 10:45am	Seats (Total: 20) ARC 1103
0201	Julie Randolph TuTh 2:00pm - 3:15pm	Seats (Total: 27) KNI 1206

BSCV301 **Leadership in a Multicultural Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: BSCV182. Restriction: Must be in the CIVICUS program.

A study and application of skills, historical context, theories, and concepts for constructive leadership in a pluralistic, multicultural, and diverse society. Social science methodologies and theories will provide the structure for the study of contemporary social problems, civil society issues, and leadership practices.

0201	Korey Rothman TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 1226
0301	Nicole Mehta TuTh 12:30pm - 1:45pm	Seats (Total: 25) SQH 1111

BSCV309 **Civicus Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Review and analysis of contemporary social issues.

Contact department for information to register for this course.

BSOS Behavioral and Social Sciences Fall 2022

BSOS201 **Ensuring your Financial Future Through Stock Investing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSSP, SCIS

Credit only granted for: BSOS289I or BSOS201. Formerly: BSOS289I. Additional information: No prior knowledge of the stock market or investing is expected or required.

Introduces students to investing and trading, with special emphasis on the field of technical analysis. Planning for one's financial future is a critical skill for all students. Students will learn how to evaluate companies using the investors.com website and the TC2000 stock charting program. Students will develop an idea of the risks and benefits of investing, establishing a savings strategy, opening an IRA, and strategically planning for future financial security. In addition to readings, lectures, and online videos, students will participate in virtual stock market trading exercises and manage a virtual account.

FC01	Amy Billing, Eric Wish	Seats (Total: 150)
	F 1:00pm - 4:00pm	ESJ 2208
	Restricted to students in Freshmen Connection.	

BSOS233 **Data Science for the Social Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115. Restriction: Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

0101	Brian Kim	Seats (Total: 50)
	Tu 9:30am - 10:45am	ESJ 2309
	Th 9:30am - 10:45am	ONLINE

BSOS248A **Leadership Seminar I; Ambassadors**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248D **Leadership Seminar I; Dean's Student Advisory Council**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS248P **Leadership Seminar I; Peer Mentor Seminar I**

(Perm req)

Credits: 1 Grading Method: Regular

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

Contact department for information to register for this course.

BSOS258D **Leadership Practicum I; Dean's Student Advisory Council**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS258L **Leadership Practicum I; DSAC Officers**

(Perm req)

Credits: 1 Grading Method: Regular

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Repeatable to 9 credits.

Contact department for information to register for this course.

BSOS258P **Leadership Practicum I; Peer Mentors**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS288I **Special Topics in Behavioral and Social Sciences; Internship Practicum in the Social Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

Contact department for information to register for this course.

BSOS355 **Social Sciences Internship Practicum**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD. Credit only granted for: BSOS388I or BSOS355. Formerly: BSOS388I.

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

0101	Kathryn Hopps Class time/details on ELMs	Seats (Total: 30) ONLINE

BSOS358A **Leadership Practicum II; Ambassadors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS358P **Leadership Practicum II; Peer Mentors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

Contact department for information to register for this course.

BSOS361 **Academic and Career Planning for Transfer Students in the College of Behavioral and Social Sciences**

Credits: 1

Grading Method: Regular, Pass-Fail

Students will utilize the resources of the Feller Center for Academic and Career Planning and TerrapinSTRONG to explore how their individual social identities and strengths contribute to building strong communities in personal, academic, and professional career spaces.

0101	Grace Riley M 5:00pm - 6:20pm	Seats (Total: 30) ONLINE
0102	Bailey Kier Th 3:30pm - 4:45pm	Seats (Total: 30) TYD 1118
0103	Stephanie Grissom Tu 3:30pm - 4:45pm	Seats (Total: 30) SYM 0215
0104	TC Lloyd M 10:00am - 11:15am	Seats (Total: 30) TLF 1101

BSOS386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

BSOS388E **Behavioral and Social Sciences Special Topics; CIDCM Minor Practicum**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

0101	Elizabeth Irlbacher	Seats (Total: 30)
	Contact instructor or department for details.	

BSOS388F **Behavioral and Social Sciences Special Topics; Innovation in the Public Sector**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Prerequisite: PSYC100, GVPT100 or ECON200. Cross-listed with GVPT388B. Credit will be granted for BSOS388F or GVPT 388B.

0101	Kenneth Ulman, Bradley Fallon	Seats (Total: 20)
	W 4:00pm - 6:30pm	CHI 2113

BSOS388Q **Behavioral and Social Sciences Special Topics; Cesar Directed Study**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

Contact department for information to register for this course.

BSOS399 **Directed Study in Behavioral and Social Sciences**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS399T **Directed Study in Behavioral and Social Sciences; Civicus Teaching Assistant**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

Contact department for information to register for this course.

BSOS448C **Teaching Assistant Practicum; Civicus**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448I **Teaching Assistant Practicum; Internship**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSOS448T **Teaching Assistant Practicum; (UNIV)**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised practicum for teaching assistants for BSOS/UNIV courses.

Contact department for information to register for this course.

BSST Terrorism Studies Fall 2022

BSST240 **Understanding The Principles and Perils of CBRN Weapons**

Credits: 3 Grading Method: Regular General Education: DSNL (if taken with BSST241), DSNS

Additional information: If taken in the same term as BSST241 these courses will count for General Education Natural Sciences Lab.

Explores the 'dark side' of scientific applications. Students will gain an understanding of CBRN Weapons, through the exploration of the scientific method, and certain fundamental principles of chemistry, biology, and physics. Students will also learn how to test hypotheses, use basic statistics, interpret results, and apply their new knowledge through discussions of practical applications in the domains of public health, emergency management, epidemiology, and threat assessment. Bringing these fields together in one class will allow students to better understand the use of and threat from CBRN weapons in terrorism.

FC01	Steve Sin	Seats (Total: 20)
	TuTh 4:30pm - 5:45pm	ASY 3219
	Restricted to students in Freshmen Connection.	

BSST241 **Understanding the Principles and Perils of CBRN Weapons (Lab)**

Credits: 1 Grading Method: Regular

Corequisite: BSST240. Additional information: This is an optional 1-credit lab course offered in coordination with BSST240. If taken in the same term as BSST240 these courses will count for General Education Natural Sciences Lab.

An exploration of the threat of Chemical, Biological, Radiological, and Nuclear (CBRN) weapons aimed to provide students with a basic, multidisciplinary, natural science foundation in chemistry, biology, and physics.

Students must also be enrolled in BSST240: Understanding the Principles and Perils of CBRN Weapons

FC01	Steve Sin	Seats (Total: 20)	
	F 10:00am - 12:30pm	EDU 3236	Lab
	Restricted to students in Freshmen Connection.		

BSST330 **Terrorism Studies**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Global Terrorism Minor; or special permission available for students in other Global Studies minors.

Theories explaining the formation of terrorist groups and the motivations behind terrorist behavior, building upon theories from social psychology, sociology, political science, criminology, and history. The course examines the different levels of analysis for terrorism studies, the different methods scholars utilize for research, and the most prominent datasets in the field of homeland security. In addition, this course provides a review of various terrorist groups and ideological movements. The course concludes with an introduction to the different approaches to counter violent extremism and terrorism.

0101	Thomas Guarrieri	Seats (Total: 40)	
	TuTh 11:00am - 12:15pm	CHE 2108	
	Restricted to students in the Global Terrorism Studies Minor(#BS07); fo inquiries, email education-start@umd.edu.		
0201	Thomas Guarrieri	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	CHE 2108	
	Restricted to students in one of the following minors: International Development & Conflict Mgmt minor (#BS02), Global Poverty minor (#AG06),International Engineering minor (#EN01);or Global Engineering Leadership minor (#EN09); for inquiries, email education-start@umd.edu.		

BSST334 **States of Emergency**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Students will explore the manner in which crises unfold from the perspective of a variety of emergency response disciplines, including: emergency management, law enforcement, intelligence analysis, cyber analysis, risk communication, health and human services, and emergency psychiatry/psychology. Students will participate in a semester-long simulation of an unfolding terrorist attack.

0101	Joseph Oudin	Seats (Total: 40)	
	Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	SPP 0301 ONLINE	Discussion

0102	Joseph Oudin Tu 12:30pm - 1:45pm Th 2:00pm - 3:15pm	Seats (Total: 40) SPP 0301 ONLINE	 Discussion
0103	Joseph Oudin Tu 12:30pm - 1:45pm Th 3:30pm - 4:45pm	Seats (Total: 40) SPP 0301 ONLINE	 Discussion

BSST335 **Innovations in Countering Violent Extremism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: BSST335 or BSST338V. Formerly: BSST338V. Additional information: It is recommended that BSST335 be taken after, or concurrent with, BSST330.

Introduces students to novel innovations in the development of Countering Violent Extremism (CVE) programs. CVE is a realm of policy, programs, and interventions designed to prevent individuals from engaging in violence associated with radical political, social, cultural, and/or religious ideologies. Unlike counterterrorism strategies that often focus on targeting and disrupting terrorist plots, CVE focuses on radicalization prevention through engagement and intervention with communities. CVE also focuses on deradicalization and rehabilitation of former extremists. Throughout the course, students will work in groups to develop their own innovative CVE programs, rather than merely learn about CVE through lectures.

Restricted to Global Terrorism Minor students (#BS07).

0101	Amy Pate MW 5:00pm - 6:15pm	Seats (Total: 40) ESJ 0215

BSST338F **Special Topics in Terrorism Studies; Media in War and Crisis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338I **Special Topics in Terrorism Studies; Arab-Israeli Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338N **Special Topics in Terrorism Studies; Arms Control in the Nuclear Realm**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST338R **Special Topics in Terrorism Studies; Peace and Conflict Honors Seminar II: Regional Conflicts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A special topics course for students in the Global Terrorism Minor program. Topics that may be offered are Psychology of Terrorism; Development of Counterterrorism Policies and Programs; Terrorism and Popular Culture; Terrorism and the Media; International Perspective on Terrorism and Counterterrorism (Education Abroad); The Evolution of Hezbollah; Terrorism and Small Wars; Political Islam in the West.

Contact department for information to register for this course.

BSST340 **Oral Communication for National Security Careers**

Credits: 3 Grading Method: Regular General Education: FSOC

Credit only granted for: BSST340 or BSST338E. Formerly: BSST338E.

Students will discuss perspectives on strategic communication and national security, while discussing and practicing public speaking skills and developing proficiency in three genres of security-related briefings. Students will work with the technical, scientific, and/or specialized data, vocabularies, processes, and products of the academic disciplines and/or fields of expertise relevant to national and international security careers.

FC01	Holly Roberts	Seats (Total: 25)
	F 1:00pm - 4:00pm	KEY 0116
	Restricted to students in Freshmen Connection.	

BSST386 **Experiential Learning in Terrorism Studies**

(Perm req)

Credits: 1-5 Grading Method: Regular, Pass-Fail

This course will supplement student's experiential learning experience, or internship in the field of terrorism studies and homeland security with guided reflection on their experiences.

0101	Eva Coll	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Registration by Departmental Permission Only	

BSST389 **Internship in Terrorism Studies**

Credits: 1-6

Grading Method: Regular, Pass-Fail

Supplements student's experiential learning experience, or internship in the field of terrorism studies and homeland security, with guided reflection on their experiences.

Contact department for information to register for this course.

BSST630 Motivations and Intents of Terrorists and Terrorist Groups

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the Terrorism Analysis Graduate Certificate Program. Credit only granted for: BSOS630 or BSST630. Formerly: BSOS630.

Examines motivations for terrorism from an interdisciplinary perspective, with emphasis on political and applied social psychological perspective. Topics may include: defining terrorism; preconditions; recruitment; domestic and international terrorism; and case studies and analysis of terrorist organizations.

PWT1	Sara Budge	Seats (Total: 35)
	Tu 6:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST634 Legal and Criminal Approaches to Counterterrorism

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the Graduate Certificate in Terrorism Analysis; or permission of instructor.

The United States and many of her allies have challenged long-standing legal boundaries in their effort to combat terrorism. This course examines these responses, including: increased criminalization of terrorism related activities; aggressive criminal prosecutions; detention of suspected terrorists indefinitely in far-off prisons; implementation of enhanced interrogation techniques; launch of drones to kill alleged terrorists, even U.S. citizens; and deployment of a vast system of mass surveillance.

PWT1	Jeffrey Davis	Seats (Total: 35)
	M 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST635 Countering Violent Extremism: Policy and Practice

Credits: 3

Grading Method: Regular, Audit

In recent years, the understanding of how and why individuals engage in violent extremism and terrorism has evolved and become more nuanced, as have the tools to mitigate these threats. A field of policy and practice called Countering Violent Extremism (CVE) has emerged that focuses on countering the pull of terrorist recruitment and influence by building resilience among populations vulnerable to radicalization.

PWT1	Samuel Henkin	Seats (Total: 30)
	Th 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST640 **Theories of Security and Terrorism Studies**

Credits: 3 Grading Method: Regular, Audit

Additional information: Priority enrollment will be given to students in the MPS in Security and Terrorism Studies program.

Security and Terrorism Studies is a broad field that includes relevant theoretical voices from across the social sciences, philosophy, and policy. This course will mainly pull from sociological, psychological, and political science (international relations) theory to help students understand the theoretical foundation for the field and for their research. Specific topics may include discussion of power dynamics, ideology, violence, conflict, realist perspectives, and critical perspectives.

PWT1	Marcus Boyd	Seats (Total: 35)
	M 6:00pm - 8:30pm Class time/details on ELMs	ONLINE ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST641 **U.S. Security Infrastructure**

Credits: 3 Grading Method: Regular, Audit

An overview of the federal departments and agencies whose core missions are to provide for security and prevent terrorism. The course will overview the Departments of Defense, State, Treasury, Homeland Security, and the U.S. Intelligence Community as well as state, local, and tribal assets, and think tanks and the media, to provide students with a better understanding of interagency successes and gaps.

PWT1	Brook Hefright	Seats (Total: 35)
	W 6:00pm - 8:30pm	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST642 **Analytic Methods**

Credits: 3 Grading Method: Regular

Development and mastery of analytic methods is vital for those seeking careers as professional analysts in fields related to security and terrorism studies. For students focused on an academic research career path, these skills will help you better interface with government and private sector consumers of your work. The overall goals for this course are to provide students with hands-on experience using analytic techniques to solve advanced problems. Classes will cover historical and current uses of analytic techniques and students will develop an understanding of which tools to use under different circumstances of analysis.

PWT1	Candace Moix	Seats (Total: 35)
	Th 6:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	Must be in the Graduate Programs in Security and Terrorism Studies or a graduate student in a Semester Academic Calendar program.	

BSST699 **Independent Study in Terrorism Studies**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An independent study course for students in the Global Terrorism Minor program.

Contact department for information to register for this course.

BUAC Accounting and Information Assurance Fall 2022

All BUAC courses are for MS in Accounting students unless otherwise noted.

BUAC707 **Financial Statement Analysis for Accountants and Auditors**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC780 or BUAC707. Formerly: BUAC780.

Provides students with the tools to conduct a financial statement analysis, which is part of an overall business analysis. This involves understanding and using the information that financial statements are communicating to users.

0501	Nick Seybert	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 2:00pm - 3:50pm	VMH 1528

BUAC710 **Advanced Managerial Accounting and Control Systems**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC782 or BUAC710. Formerly: BUAC782.

Focuses on topics that emphasize the role of managerial accounting in a firm's overall management planning and control structure. A key concern is to show how effective organizations ensure that the parts of the organization work together to create the whole, and how the sum of the parts, through synergy, can indeed be greater then the whole.

0501	Darlene Dennison	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1528

BUAC712 **Business Communications for Accountants and Auditors**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC784 or BUAC712. Formerly: BUAC784.

Focuses on the art of communication and its effects on people, organizations, and other stakeholders. The course will focus on two aspects of business communications: persuasion and effective presentations. The objective for the persuasion sessions is to have students improve upon their day-to-day oral business communications skills. This will be accomplished as participants learn to tailor each communication to the person or people with whom they are speaking.

0501	Samuel Handwerger	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 10:00am - 11:50am	VMH 1528

BUAC716 **Auditing Automation and Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Auditing theory and the functions of the independent auditor in the financial market. As part of the class, the students will cover issues related to auditing large databases and audit analytics of large database. Moreover, the students will study audit automation and the use of artificial intelligence (AI) and Robotic process in the auditing market.

0501	James McKinney	Seats (Total: 42)
	Meets August 29, 2022 - October 17, 2022	
	MW 4:00pm - 5:50pm	VMH 1520

BUAC721 **Business Law for Managers**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI764 or BUAC721.

Survey of United States legal institutions and processes as well as substantive areas of the law that affect business. Examination of tort and contract law, the legal forms of business organization and legal liability and major regulatory laws that affect business.

0501	Jon Crocker	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 10:00am - 11:50am	VMH 2511

BUAC722 **Applied Research for Accounting and Auditing**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Designed to give accounting masters students exposure to and appreciation of the various types of research that are undertaken by accounting and auditing professionals, including CPAs, financial analysts and academics. Accounting research will be studied as it relates to financial accounting standards, auditing standards, gaining understanding of a business and industry, and to a very limited extent tax and academic research. Students will gain experience working with professional accounting research databases as well as other databases that are useful for accounting research. Auditors and corporate preparers of financial statements need to know how to determine current GAAP and GAAS as they confront new issues and as standards evolve and change. Professionals need to understand how the standards are derived and how to analyze policy alternatives. Additionally, students will also explore the process of researching a business or industry in preparation for an audit.

0501	James McKinney	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	MW 4:00pm - 5:50pm	VMH 2511

BUAC731 **Intermediate Accounting I**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758L or BUAC731. Formerly: BUAC758L.

The first part of a three-series set of courses on intermediate accounting; presents an in-depth analysis of financial accounting and reporting theory and practice that will enhance student understanding of financial information used in making effective management decisions. For each topic included in the series, this course presents a review of the underlying business transactions that require accounting along with a review the technical details of U.S. Generally Accepted Accounting Principles (GAAP) and applicable International Financial Reporting Standards (IFRS). The course covers the informational needs of managers, securities analysts, investors and creditors, applicable to a variety of business transactions and events. The course includes materials helpful to students planning to take the CPA Examination. Intermediate Accounting I focuses on financial accounting standards, the conceptual framework of accounting, the accounting information system, the balance sheet, income statement, statement of cash flows, time value of money concepts and revenue recognition.

0501	Sean Cao	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	MW 10:00am - 11:50am	VMH 2505

BUAC740 **Data Driven Decision Making**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

Proficiency in the art of analyzing data to support decision-making is critical for business professionals. In this course, we will explore basic analytical principles that can assist a manager to extract information from raw data and model complex decision problems with quantitative methods. A good outcome does not necessary imply a good decision, a good outcome can be a matter of luck. A good decision is founded on sound reasoning and considers all the information available at the time of the decision.

0501	Tunay Tunca	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 12:00pm - 1:50pm	VMH 1528

BUAC756 **Informtion Security, Audit and Control**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC790 or BUAC756. Formerly: BUAC790.

Builds on basic information technology (IT) courses, focusing on key issues including IT security, IT controls, and IT auditing. Addressing issues such as auditing a computer information system; assessing risks; identifying control objectives; identifying appropriate audit procedures; learning the concepts and basic features or audit software thereby providing the tools for choosing audit software; conducting an operational audit basic controls over computer information systems; and developing world-class IT control frameworks.

0501	Stacey Ferris	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	MW 6:00pm - 7:50pm	VMH 1520

BUAC758A **Special Topics in Accounting and Information Assurance; Accounting for Income Tax and Database Management**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Darian Harnish	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 6:00pm - 7:50pm	VMH 1520

BUAC758Q **Special Topics in Accounting and Information Assurance; Research on Accounting and Economic Cybersecurity**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Lawrence Gordon	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 10:00am - 11:50am	VMH 2511

BUAC758S **Special Topics in Accounting and Information Assurance; Systems for Data Analysis**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in accounting and information assurance.

0501	Woei-jyh Lee	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1511

BUAC759 **Independent Study in Accounting and Information Assurance**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for masters students in accounting and information assurance.

Contact department for information to register for this course.

BUAC762 **Tax I: Taxation of Individuals & Forecasting Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions including home ownership. Property coverage includes the tax consequences of sales and dispositions of personal use assets, investment and business assets. Both tax planning and compliance issues are also covered. In addition the course covers waged based and equity-based compensation, taxable and nontaxable benefits as well as deferred compensation and various retirement plans. In addition, students will learn how to utilize regression analysis and scenario analysis to provide additional insights about these tax topics and to forecast future effective tax rates.

0501	Leslie Mostow	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1518

BUAC764 **Tax II: Taxation of Corporations & Other Entities**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUAC758V or BUAC764. Formerly: BUAC758V.

Students have the opportunity to gain an understanding of the basic tax competencies required for determining the appropriate tax structure for businesses; issue identification; active listening; solving tax problems.

0501	Leslie Mostow	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1528

BUAC772 **Database Management and State and Local Taxation**

(Perm req) Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Covers the tax implications of doing business in the United States across state lines, resulting in multiple taxation under the Commerce Clause of the United States Constitution. The course focuses on nexus or jurisdictional due process (which gives states the right to tax business profits), allocation and apportionment formulas of multi state income, business versus non-business income, privilege tax and discrimination. Also explored are the current tax developments under the Import-Export clause of the United States Constitution, taxation based on class legislation and the Equal Protection Clause, the multi-state tax compact, unitary concept, residence definitions, nonresident income sources, tax credits and short-period returns for individual income taxpayers, sales of tangible personal property, and retail and wholesale sales. The course examines valuation techniques for real and personal property. Students will learn the skills needed to understand and identify many aspects of the state income tax apportionment process. Focus will be placed on calculations and analyses required to present the state and local tax information in such a manner as to assist upper management in the business expansion decision-making process. The tax apportionment process requires a solid understanding of database management and we will utilize tools that are considered required knowledge in today's tax departments.

0501	Jeffrey Milton	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 6:00pm - 7:50pm	VMH 1518

BUDT Decision and Information Technologies Fall 2022

BUDT700 Business Communication

(Perm req) Credits: 1 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758A or BUDT700. Formerly: BUDT758A.

Consists of written and oral base-line assessments. Students will meet with Program administrators to receive feedback on these assessments and create an individualized development plan. Workshops and core course assignments, Smith-related activities and CMP assignments.

0506	Cary Gillett	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	Th 5:00pm - 6:50pm	VMH 1528
	Class time/details on ELMs	ONLINE

0507	Cary Gillett **Meets August 29, 2022 - October 17, 2022** Th 7:00pm - 8:50pm Class time/details on ELMs	Seats (Total: 0) VMH 1528 ONLINE

BUDT703 **Database Management Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758Y OR BUDT703. Formerly: BUDT758Y.

Introduction to the conceptual, logical and physical design of relational database systems and their use in business environments. Topics include information modeling and optimization via normalization; Structured Query Language (SQL); Data Warehousing.

0501	Woei-jyh Lee MW 5:00pm - 6:15pm	Seats (Total: 0) VMH 1336
0502	Woei-jyh Lee MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330
0503	Woei-jyh Lee TuTh 5:00pm - 6:15pm	Seats (Total: 0) VMH 1303
0506	Woei-jyh Lee MW 2:00pm - 3:15pm	Seats (Total: 0) VMH 1330
0507	Woei-jyh Lee MW 11:00am - 12:15pm	Seats (Total: 0) VMH 1330

BUDT704 **Data Processing and Analysis in Python**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758X OR BUDT704. Formerly: BUDT758X.

An introduction to the Python programming language for the purpose of processing, analyzing, and visualizing data. In addition, students will be introduced to developing basic regression, optimization, and simulation models in Python, using highly popular packages. Course emphasis is on mastering basic Python functionality and developing intermediate to advanced skills in working with data, through instruction and active learning.

0501	John Bono TuTh 6:30pm - 7:45pm	Seats (Total: 0) VMH 1335
0502	John Bono TuTh 5:00pm - 6:15pm	Seats (Total: 0) VMH 1335
0503	Kunpeng Zhang MW 3:30pm - 4:45pm	Seats (Total: 0) VMH 1336
0506	Peng Huang TuTh 3:30pm - 4:45pm	Seats (Total: 0) VMH 1412
0507	Peng Huang TuTh 9:30am - 10:45am	Seats (Total: 0) VMH 1330

BUDT721 **Digital Transformation in Business**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758E or BUDT721. Formerly: BUDT758E.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

0501	Tejwansh Anand **Meets October 24, 2022 - December 13, 2022** TuTh 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505
0502	Tejwansh Anand **Meets October 24, 2022 - December 13, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505

0503	Tejwansh Anand **Meets October 24, 2022 - December 13, 2022** TuTh 6:30pm - 8:20pm	Seats (Total: 0) VMH 1505

BUDT722 **Managing Digital Business Markets**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUDT758G or BUDT722. Formerly: BUDT758G.

The objective is to understand the strategic and tactical issues involved in managing digital businesses and markets. Also, some of the characteristics of digital businesses and markets that make them unique and understand how companies can best manage them will be examined.

0501	Siva Viswanathan **Meets August 29, 2022 - October 17, 2022** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1511
0502	Siva Viswanathan **Meets August 29, 2022 - October 17, 2022** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1511
0503	Siva Viswanathan **Meets August 29, 2022 - October 17, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1330

BUDT730 **Data Models and Decisions**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUSI758B, BUDT758Q or BUDT730. Formerly: BUDT758Q.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Sujin Kim MW 11:00am - 12:15pm	Seats (Total: 0) VMH 1336
0502	Sujin Kim MW 2:00pm - 3:15pm	Seats (Total: 0) VMH 1336

0503	Sujin Kim MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1336
0506	Sujin Kim TuTh 11:00am - 12:15pm	Seats (Total: 0) VMH 1330
0507	Sujin Kim TuTh 12:30pm - 1:45pm	Seats (Total: 0) VMH 1330

BUDT732 **Decision Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BMGT732, BUDT758P or BUDT732. Formerly: BMGT732 and BUDT758P.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

0506	Maria Bardossy MW 3:30pm - 4:45pm	Seats (Total: 0) VMH 1524
0507	Maria Bardossy MW 9:30am - 10:45am	Seats (Total: 0) VMH 1330

BUDT737 **Big Data and Artificial Intelligence for Business**

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business. Credit only granted for: BUDT758B or BUDT737. Formerly: BUDT758B.

This course uses a learning-by-doing approach to understand key concepts behind Big Data and AI, the strategic drivers of these technologies and the value propositions that they provide to industry. The course cover technologies within this ecosystem including Hadoop, AWS, Pig, Hive, Amazon Web Services and Spark. Examples of AI using Deep Learning will be presented. The focus is on creating awareness of the technologies, providing some level of familiarity with them through hands-on exercises and projects, and enabling strategic thinking around the use of these technologies in business.

0501	Peter Rankel, Alan Briggs TuTh 3:30pm - 4:45pm	Seats (Total: 40) VMH 1336
0502	Peter Rankel, Alan Briggs TuTh 5:00pm - 6:15pm	Seats (Total: 40) VMH 1336

0503	Peter Rankel, Alan Briggs TuTh 6:30pm - 7:45pm	Seats (Total: 40) VMH 1336

BUDT740 **Management of Information Systems**

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith. Credit only granted for: BUDT758J or BUDT740. Formerly: BUDT758J.

To work together effectively for an organization's success, both business managers and IS managers must understand how to both manage and utilize information systems. This course explores management issues and opportunities of the IS function within organizations. Topics include e-business, protection of intellectual property and personal information, software development, IS operations, systems availability and business continuity, IS for multinational organizations, shadow IS organizations, business partnerships and alliances, and mergers, acquisitions, and divestitures.

0501	Paul Shapiro MW 11:00am - 12:15pm	Seats (Total: 60) VMH 1303

BUDT758I **Special Topics in Decision, Operations and Information Technologies; Applied Finance Information Systems**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0501	Harish Neelakandan M 5:00pm - 7:40pm	Seats (Total: 73) VMH 1333

BUDT758L **Special Topics in Decision, Operations and Information Technologies; Price Optimization & Revenue Management**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Business Analytic students only.

0506	Yi Xu M 7:00pm - 9:40pm	Seats (Total: 0) VMH 1330
0507	Yi Xu Tu 7:00pm - 9:40pm	Seats (Total: 0) VMH 1330

BUDT758M **Special Topics in Decision, Operations and Information Technologies; Healthcare Information Systems**

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

For MS in Information Systems students only.

0501	Kenyon Crowley W 5:00pm - 7:40pm *For MS in Information Systems students only.*	Seats (Total: 55) VMH 1333

BUDT758W **Special Topics in Decision, Operations and Information Technologies; Capstone Project in Business Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

0506	Suresh Acharya Tu 7:00pm - 9:40pm *For MS in Business Analytics students only.*	Seats (Total: 0) VMH 1333
0507	Suresh Acharya M 7:00pm - 9:40pm	Seats (Total: 0) VMH 1412

BUDT759 **Independent Study in Decision and Information Technologies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Independent study for masters students in decision and information technologies.

Contact department for information to register for this course.

BUFN Finance Fall 2022

BUFN400 **Introduction to Financial Markets and Financial Datasets**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: CMSC320, CMSC351, MATH240, and MATH241 . Restriction: By Permission Only.

This course will provide an overview of financial concepts and markets and datasets. Company financial statements will be used to review concepts including earnings, cash flow, accruals, investment, dividends, etc. The course will introduce concepts related to portfolio theory and asset pricing. It will introduce the fundamentals of the stock market and market microstructure, including bid ask spreads and market liquidity. Advanced topics include event studies, high frequency trading, Over The Counter (OTC) bond markets, and more specialized institutional arrangements including repo markets and foreign currency exchange markets.

Computer Science majors who would like to take this course should email Professor Albert Kyle askyle4@umd.edu and Professor Louiqa Raschid lraschid@umd.edu for permission to register for this course.

0101	Albert Kyle MW 2:00pm - 3:15pm	Seats (Total: 35) CSI 3118

Courses with the BUFN prefix are offered only for students in the Master of Finance and Master of Quantitative Finance programs.

BUFN610 **Financial Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUSI640, BUFN610, or BMGT610.

Focuses on the valuation of the real assets of firms as well as the valuation of stocks and bonds, the primary financial assets in an economy. While details vary, the conceptual foundations of valuation boil down to three themes: time value of money, no-arbitrage, and systematic risk.

0501	Michael Faulkender **Meets August 29, 2022 - October 17, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1505
0505	Michael Faulkender **Meets August 29, 2022 - October 17, 2022** TuTh 12:00pm - 1:50pm	Seats (Total: 0) VMH 1505

BUFN620 **Capital Markets**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN740 or BUFN620. Formerly: BUFN740.

Designed to deepen the foundations necessary to finance focused students, especially those intending to specialize in the quantitative areas of finance including investments, fixed income, and financial engineering.

For Master of Finance students only.

0501	Sarah Kroncke **Meets August 29, 2022 - October 17, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505

BUFN630 **Valuation in Corporate Finance**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN630, BUFN714, BUFN750, BUFN753, or BMGT730. Formerly: BUFN750.

An advanced topics course in Corporate Finance dealing with valuation. Main topics will be, building pro forma statements, cost of capital, using ratios and comparables to value projects and firms, dicounted cash flow valuations, WACC and APV methods of valuation and Real Option Valuations.

0501	Maria Bustamante **Meets October 24, 2022 - December 13, 2022** MW 2:00pm - 3:50pm	Seats (Total: 50) VMH 1505
0505	Maria Bustamante **Meets October 24, 2022 - December 13, 2022** MW 4:00pm - 5:50pm	Seats (Total: 50) VMH 1505

BUFN640 **Financial Data Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Credit only granted for: BUFN758N of BUFN640. Formerly: BUFN758N.

The course adopts a machine learning mindset to study standard techniques of econometric analysis of financial data. The focus is on understanding, interpretation, and practical applications in Python and Google Colab.

0501	Serhiy Kozak **Meets August 29, 2022 - October 17, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1511

0505	Serhiy Kozak **Meets August 29, 2022 - October 17, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1511

BUFN650 **Machine Learning in Finance**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN640. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Credit only granted for: BUFN758O or BUFN650. Formerly: BUFN758O.

A hands-on course on applications of cutting-edge machine learning methods to financial modeling. It introduces students to a wide variety of machine learning techniques ranging from lasso regression to deep learning and TensorFlow.

0501	Serhiy Kozak **Meets October 24, 2022 - December 13, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1511
0505	Serhiy Kozak **Meets October 24, 2022 - December 13, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1511

BUFN660 **Derivative Securities**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN660, BUFN726, BUFN761 or BUFN773. Formerly: BUFN761.

Standard types of derivatives contracts are presented, and illustrated as to how they are used in practice. The theory of pricing these contracts is then presented in detail. The use of static and dynamic replication strategies, and the concept of no-arbitrage strategies is illustrated in numerous ways. Standard valuation techniques are covered, and standard formulas are presented. The theory is then applied to develop specific pricing and hedging strategies for various types of derivatives on different underlying assets. The management of the exposure of various risks is covered in detail as well.

0501	Seokwoo Lee **Meets October 24, 2022 - December 13, 2022** TuTh 2:00pm - 3:50pm	Seats (Total: 50) VMH 1330
0505	Seokwoo Lee **Meets October 24, 2022 - December 13, 2022** TuTh 4:00pm - 5:50pm	Seats (Total: 38) VMH 1518

BUFN712 **Financial Restructuring**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN712 or BUFN752. Formerly: BUFN752.

Focuses on identifying ways to increase firm value through corporate restructuring. Specific topics include: mergers and tender offers, spin-offs, carve-outs, divestitures, takeover defense strategies, leveraged buy-outs, and international acquisitions. Additionally, the theory, practice and empirical evidence related to each of these topics will be covered. Emphasis will be placed on valuation analysis and strategic considerations.

0501	James Seward **Meets August 29, 2022 - October 17, 2022** MW 4:00pm - 5:50pm	Seats (Total: 0) VMH 1505

BUFN721 **International Investment**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN721 or BUFN770. Formerly: BUFN770.

Addresses international stock markets, portfolio theory, international interest rates, exchange rates and exchange rate derivatives (options, forwards, and futures), exchange rate swaps and exchange rate exposure (operating, translation, and transaction), foreign investment strategy.

0501	Vojislav Maksimovic **Meets August 29, 2022 - October 17, 2022** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1505

BUFN730 **Advanced Financial Modeling and Equity Analysis**

(Perm req) Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN760 or BUFN730. Formerly: BUFN760.

Provides in-depth analysis of public equities, with a focus on financial statement analysis, financial forecasting and ultimately valuation. Students will apply the primary valuation techniques used in industry to estimate market values for equities. Additionally, students learn how to stress test their financial models and interpret outcomes.

0501	Sarah Kroncke	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUFN734 Portfolio Management

(Perm req) Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUFN734 or BUFN763. Formerly: BUFN763.

Provides training that is important in understanding the investment process - the buy side of the financial world. Specifically, the objective is to provide graduate-level instruction in the following topics, both in theory and in using financial markets data to test the basic theory and practice of portfolio choice and equilibrium pricing models and their implications for efficient portfolios.

0502	Mark Loewenstein	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1333

BUFN741 Advanced Capital Markets

(Perm req) Credits: 2 Grading Method: Regular

Prerequisite: BUFN620; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN758P or BUFN741. Formerly: BUFN758P.

This course covers modern theories and techniques for investments and asset pricing. The main topics covered are: portfolio theory, pricing models, market efficiency, fixed income investment, forwards and futures, and options.

For Master of Quantitative Finance students only.

0505	Kenneth Fuller	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1505

BUFN742 **Financial Engineering**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610. Restriction: Permission of BMGT-Robert H. Credit only granted for: BUFN742 or BUFN766. Formerly: BUFN766.

Introduces and applies various computational techniques useful in the management of equity and fixed income portfolios and the valuation of financial derivatives and fixed income securities. Techniques include Monte Carlo Simulation and binomial/lattice pricing models. Emphasis is on bridging theory with the design of algorithms and models that can be directly applied in practice.

0501	Clifford Rossi	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1505

BUFN744 **Fixed Income Derivatives**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUFN610; and BUFN732. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN765 or BUFN744. Formerly: BUFN765.

Surveys fixed income assets and related securities such as Exchange-traded bond options; bonds with embedded options; floating rate notes; caps, collars, and floors; floating rate notes with embedded options. Also surveys advanced tools for interest-rate and fixed-income portfolio management, including the use of derivative securities, and the application of binomial trees for analysis of options, and a sound understanding of stochastic yield curves.

0501	Haluk Unal	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	M 6:25pm - 10:00pm	VMH 1511

BUFN746 **Enterprise and Credit Risk Management**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUSI640; and BUFN740. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Surveys the theory and practice of credit risk identification, measurement and mitigation along with understanding the principles of enterprise risk governance and risk-adjusted returns. The course examines how to develop credit loss distributions via Monte Carlo simulation or copula methodologies for consumer assets such as mortgages, credit cards and auto loans, developing commercial loan scorecards for rating credit risk. Pricing and use of various credit structures such as credit default swaps, collateralized debt obligations and credit-linked notes is examined.

0501	Clifford Rossi	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 8:00am - 9:50am	VMH 1333

BUFN758L **Special Topics in Finance; Fintech: Business Disruptions, Innovations, and Opportunities**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

0501	Shrihari Santosh	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1333

BUFN758Z **Special Topics in Finance; Global Equity Fund**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN759 **Independent Study in Finance**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in finance.

By Department Permission Only.

Contact department for information to register for this course.

BUFN768A **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768B **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768O **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768P **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768X **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BUFN768Y **Special Topics in Finance; Experiential Learning Project**

(Perm req)

Credits: 1-4 Grading Method: Regular

Selected experiential learning opportunities in advanced topics in the various fields of graduate study in finance.

Contact department for information to register for this course.

BULM Logistics, Business, and Public Policy Fall 2022

Courses with the BULM prefix are offered only for students in the MS in Supply Chain Management program.

BULM700 **Business Fundamentals for Supply Chain Managers I**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BULM758K or BULM700. Formerly: BULM758K.

This course is part of a series of two courses Business Fundamentals for SCM part I and, part II. The series is intended to provide you with the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain a solid understanding of accounting, finance and the link between supply chain and overall financial performance. Students will analyze financial statements and explain the implications of supply chain management decisions on standard financial ratios and all components of the balance sheet and income statement. Through interactive supply chain finance models, students will demonstrate the sensitivity of outcome to multiple independent variables. Last but not least, students will also learn how to apply the net present value technique to evaluate the feasibility of investment projects in supply chain.

0501	Humberto Coronado	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1333

BULM701 **Business Fundamentals for Supply Chain Managers II**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BULM700; or permission of BMGT-Robert H. Smith School of Business. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758Q or BULM701. Formerly: BULM758Q.

This is the second course of the series Business fundamentals for Supply Chain Managers. This course is intended to provide you with the knowledge and skills necessary to quantify the impact of supply chain management decisions on the bottom line. Students will gain a solid understanding of accounting, finance and the link between supply chain and overall financial performance. Students will analyze financial statements and explain the implications of supply chain management decisions on standard financial ratios and all components of the balance sheet and income statement. Through interactive supply chain finance models, students will demonstrate the sensitivity of outcome to multiple independent variables. Last but not least, students will also learn how to apply the net present value technique to evaluate the feasibility of investment projects in supply chain.

0501	Humberto Coronado	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 12:00pm - 1:50pm	VMH 1333

BULM710 **Data Driven Decision Making I**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630, BULM758X or BULM710. Formerly: BULM758X.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Ashish Kabra	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1333

BULM711 **Data Driven Decision Making II**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630, BULM758Y or BULM711. Formerly: BULM758Y.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0501	Maria Bardossy	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1333

BULM721 **Global Supply Chain Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI672 or BULM721.

Offers a practical blueprint for understanding, building, implementing, and sustaining supply chains in today's rapidly changing global supply chain environment. It will provide the student with a survey of the fast-moving Supply Chain Management discipline and practice, including the evolution of supply chain strategies, business models and technologies; current best practices in demand and supply management; and methodologies for conducting supply chain-wide diagnostic assessments and formulating process improvement plans.

0501	Leland Gardner	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 8:00am - 9:50am	VMH 1511

BULM742 **Global Supply Chain Resources Planning**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

Provides students with an overall understanding of how firms use an advanced supply chain planning (ASCP) application as an integral part of their materials management process which includes such activities as production planning, materials requirements planning, and distribution requirements planning.

0501	Philip Evers	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	MW 4:00pm - 5:50pm	VMH 1511

BULM750 **Lean Sigma for Supply Chain I**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758L or BULM750. Formerly: BULM758L.

This course is part of a series of courses. This the second part of the Lean Six Sigma for SC Managers course series. We will be focusing on the Analyze, Improve and Control phases of the Lean Six Sigma methodology. Lean Six Sigma is a robust methodology for problem solving aiming to improve quality and reduce speed within a process. This course covers up to the Lean and Six Sigma Green Belt level body of knowledge. You will be expected to conduct a project on a case study of a business looking to improve their processes to meet customer requirements.

0501	Jewelyn Harrington	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	M 6:25pm - 10:00pm	VMH 1505

BULM751 **Lean Sigma for the Supply Chain II**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BULM750. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758V or BULM751. Formerly: BULM758V.

This course is part of a series of courses. The first part will cover the Introduction, Define and Measure Phases of the Lean Six Sigma Methodology. Lean Six Sigma is a robust methodology for problem solving aiming to improve quality and reduce speed within a process. This course covers up to the Lean and Six Sigma Green Belt level body of knowledge. You will be expected to conduct a project on a case study of a business looking to improve their processes to meet customer requirements.

0501	Jewelyn Harrington	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	M 6:25pm - 10:00pm	VMH 1505

BULM756 **Supply Chain Strategy**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM758B or BULM756. Formerly: BULM758B.

Examines supply chain management at the strategic level. Through class lectures, case discussions, and assignments, students first learn about the determinants of corporate strategy. Supply chain strategies are then discussed, along with the need to properly align supply chain strategy with corporate strategy. Finally, there is a discussion of how to implement supply chain strategy, given various environmental and market considerations.

0501	Martin Dresner **Meets October 24, 2022 - December 13, 2022** MW 2:00pm - 3:50pm	Seats (Total: 0) VMH 1520

BULM758N **Special Topics in Logistics, Business and Public Policy; Supply Chain Sustainability**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in logistics, business and public policy.

0501	Jon Crocker **Meets August 29, 2022 - October 17, 2022** MW 2:00pm - 3:50pm	Seats (Total: 50) VMH 1520

BULM759 **Independent Study in Logistics Management**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BULM759A **Independent Study in Logistics Management**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Logistics Management.

Contact department for information to register for this course.

BUMK Marketing Fall 2022

BUMK720 **Marketing Strategy**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of BMGT-Robert H. Smith School of Business; or must be in Business and Management (Master's) program. Credit only granted for: BUMK758B or BUMK720. Formerly: BUMK758B.

Introduces students to the fundamentals of marketing. This course combines lectures, readings, case analyses and a competitive simulation. A significant part of the course involves a competitive computer-based simulation in which student teams leverage marketing data and metrics to make marketing decisions for an organization that is competing in a market against other student teams in the class.

Courses with the BUMK prefix are offered only for students in the MS in Marketing Analytics program.

0502	Judy Frels TuTh 5:00pm - 6:15pm	Seats (Total: 65) VMH 1330

BUMK724 **Customer Analysis**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758D or BUMK724. Formerly: BUMK758D.

Focuses on the analysis of customer decision-making and how marketing strategy can be used to influence those decisions. The framework used is the buyer behavior model, in which concepts from psychology, sociology, and economics are applied to individual and organizational purchase decisions. Marketing strategies of leading firms in consumer products, technology, and services (including internet services) are analyzed using a variety of case study formats.

0501	Rosellina Ferraro MW 12:30pm - 1:45pm	Seats (Total: 0) VMH 1335
0502	Rosellina Ferraro MW 2:00pm - 3:15pm	Seats (Total: 0) VMH 1335

BUMK726 **Statistical Programming for Customer Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758E or BUMK726. Formerly: BUMK758E.

Provides students with a foundation in probability and statistics with a focus on business applications. It also gives students a foundation for thinking in both likelihood and Bayesian frameworks. The course teaches students the basics of SAS, as well as its use in statistical analysis and statistical programming. Also addressed are basic SAS language structure, data management, OLAP, enterprise miner, statistical analysis, writing procedures.

0501	Jason Choi Tu 6:30pm - 8:20pm Class time/details on ELMs	Seats (Total: 0) VMH 1520 ONLINE
0502	Jason Choi Th 6:30pm - 8:20pm Class time/details on ELMs	Seats (Total: 0) VMH 1520 ONLINE

BUMK742 **Advanced Marketing Analytics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758K or BUMK742. Formerly: BUMK758K.

The analysis of marketing data needed for profitable marketing decisions. Advanced methods of marketing analysis for marketing decisions, including choice and count data models, joint analysis of consumers choice, quantity and timing decisions, mixture and mixture regression models, and conjoint analysis, all using data-based cases and SAS software. Applications are in the areas of strategic marketing, marketing segmentation, eye tracking for advertising effectiveness, new product development, sales promotion analysis, pricing, design of marketing mix, and direct marketing.

0501	Michel Wedel W 7:00pm - 9:40pm	Seats (Total: 65) VMH 1412

BUMK759 **Independent Study in Marketing**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Marketing.

Contact department for information to register for this course.

BUMK760 **Business Policies and Ethics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758F or BUMK760. Formerly: BUMK758F.

The standards of business conduct, morals and values as well as the role of business in society. Students will consider the sometimes conflicting interests of and claims on the firm and its objectives.

0501	Wendy Moe **Meets August 29, 2022 - December 13, 2022** TuTh 1:00pm - 1:50pm	Seats (Total: 0) VMH 1520

0502	Wendy Moe **Meets August 29, 2022 - December 13, 2022** TuTh 2:00pm - 2:50pm	Seats (Total: 0) VMH 1520

BUMK762 **Business Communication I**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758H or BUMK762. Formerly: BUMK758H.

A study of the standards of business conduct, morals and values as well as the role of business in society. Students will consider the sometimes conflicting interests of and claims on the firm and its objectives.

0501	Melissa Lucas **Meets October 24, 2022 - December 13, 2022** M 4:00pm - 5:50pm	Seats (Total: 0) VMH 1520
0502	Raphael Mazzone **Meets October 24, 2022 - December 13, 2022** W 4:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 0) VMH 1520

BUMK766 **Digital Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758N or BUMK766. Formerly: BUMK758N.

Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention is devoted to the tools and techniques unique to the electronic media.

0501	Michael Trusov **Meets October 24, 2022 - December 13, 2022** MW 10:00am - 11:50am	Seats (Total: 0) VMH 1528

0502	Michael Trusov **Meets October 24, 2022 - December 13, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 1528

BUMK773 **Pricing Analytics and Strategies**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758J or BUMK773. Formerly: BUMK758J.

The economic and behavioral aspects of pricing and the evaluation of innovative pricing practices such as price matching, customized pricing, bundle pricing and product line pricing. The course will cover both B2B, B2C, online and offline markets. Instruction will be through a mix of case studies, pricing simulation games, hands-on exercises, practitioner guest lectures and discussions.

0501	Bo Zhou **Meets August 29, 2022 - October 17, 2022** TuTh 8:00am - 9:50am	Seats (Total: 0) VMH 1333
0502	Bo Zhou **Meets August 29, 2022 - October 17, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1333

BUSI Part-Time MBA Program Fall 2022

BUSI600 **Fundamentals of Business Decision Making**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business. Additional information: Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

Introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation.

BA01	Mary Beth Furst **Meets August 20, 2022 - September 24, 2022** SaSu 8:30am - 6:00pm *Class will meet in person on August 21, August 22, and September 25.*	Seats (Total: 75) Location: TBA

DC01	Mary Beth Furst	Seats (Total: 75)
	Meets August 20, 2022 - September 24, 2022	
	SaSu 8:30am - 6:00pm	Location: TBA
	Class will meet in person on August 21, August 22, and September 25.	

BUSI602 **Leading with a Strategic Mindset**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

This course sits at the intersection of leadership and strategy. Focuses on the aspects of the firm that facilitate reaching strategic objectives. In particular, organizational alignment facilitates the development of innovative ideas, achieving operational efficiency, sustaining organizational growth, adopting new business models, achieving strategic change, and building organizational competence. Use of several tools in analysis, such as congruence analysis, the 7S model, network analysis, and design thinking. Focus on thinking systematically and analytically about managing an organization and leading strategically.

DC01	Paulo Prochno	Seats (Total: 45)
	Meets October 24, 2022 - December 15, 2022	
	M 6:25pm - 10:00pm	ONLINE

BUSI634 **Operations Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634 or BMGT624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

BA01	Suresh Acharya	Seats (Total: 45)
	Meets August 29, 2022 - October 13, 2022	
	W 6:25pm - 10:00pm	BA 104

DC01	Anand Anandalingam **Meets August 29, 2022 - October 13, 2022** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 35) DC C3
DC02	Anand Anandalingam **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 35) DC C3
GS01	Suresh Acharya **Meets August 29, 2022 - October 13, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI650 **Marketing Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI650 or BMGT612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

BA01	Dan Goldsmith **Meets October 24, 2022 - December 15, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Dan Goldsmith **Meets October 24, 2022 - December 15, 2022** M 6:25pm - 10:00pm	Seats (Total: 45) DC C2
GS01	Mary Beth Furst **Meets October 24, 2022 - December 15, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI662 **Leadership and Teamwork**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BMGT600, BUSI662, or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

BA01	Gosia Langa Basit **Meets August 29, 2022 - October 13, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Subrahmaniam Tangirala **Meets August 29, 2022 - October 13, 2022** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) DC C2
GS01	Subrahmaniam Tangirala **Meets August 29, 2022 - October 13, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI681 **Managerial Economics and Public Policy**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)). Credit only granted for: BUSI681 or BMGT604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

BA01	Jon Crocker **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Jon Crocker **Meets August 29, 2022 - October 13, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) DC C3

GS01	Jon Crocker **Meets August 29, 2022 - October 13, 2022** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) BLD4 4335

BUSI683 **The Global Economic Environment**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

BA01	Cristian Dezso **Meets October 24, 2022 - December 15, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Cristian Dezso **Meets October 24, 2022 - December 15, 2022** M 6:25pm - 10:00pm	Seats (Total: 35) DC C3
DC02	Cristian Dezso **Meets October 24, 2022 - December 15, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 35) DC C3
GS01	Cristian Dezso **Meets October 24, 2022 - December 15, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI710 **Competitive and Collaborative Negotiation**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

BA01	Gosia Langa Basit **Meets August 29, 2022 - October 13, 2022** M 6:25pm - 10:00pm Contact instructor or department for details.	Seats (Total: 45) BA 103
DC01	Rellie Rozin **Meets August 29, 2022 - October 13, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) DC C1
GS01	Vijaya Venkataramani **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) BLD4 5308

BUSI711 Industry Analysis

Credits: 2 Grading Method: Regular

Recommended: BUSI690. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Conceptual framework and analytical tools for understanding the dynamic of industry structure. Impacts of past and future attractiveness of the industry on profitability. Developing and applying frameworks to devise competitive strategies in uncertain industries.

BA01	Roy Thomason **Meets August 29, 2022 - October 13, 2022** M 6:25pm - 10:00pm Class time/details on ELMs	Seats (Total: 50) ONLINE ONLINE

BUSI712 Entrepreneurship and New Ventures

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Provides an introduction to important tools and skills necessary to create and grow a successful new venture. Integrates research findings from a range of different practical and intellectual perspectives, including psychology, sociology, economics, strategic management, and history into practical, hands on lessons for an entrepreneur. Class projects provide the foundations for new, real businesses.

DC01	Sheetal Singh **Meets October 24, 2022 - December 15, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI713 **Global Strategy**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert , H. Smith School of Business.

Focuses on the "strategic" and "organizational" questions that a company must address as it globalizes its footprint. Among the questions that will be addressed are: What are the potential benefits, costs, and risks associated with going abroad? What differentiates a "global" from a "multidomestic" industry? What are the sources of competitive advantage in a global context?

BA01	Paulo Prochno **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 50) ONLINE

BUSI718D **Special Topics in Business; Data Driven Analytics**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

BA01	Ashish Kabra **Meets October 24, 2022 - December 15, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) BA 104
DC01	Ashish Kabra **Meets October 24, 2022 - December 15, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) DC C1
GS01	Ashish Kabra **Meets October 24, 2022 - December 15, 2022** M 6:25pm - 10:00pm	Seats (Total: 45) BLD4 4335

BUSI731 **Managing Brands and Products**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Brand names are valuable assets for firms. Effective brand management is critical to maintaining the long-term profitability of products and services. Topics include understanding brands from the customer's perspective, building brand equity, measuring brand equity, leveraging brand equity, managing brand portfolios and managing brands over time.

GS01	Mary Beth Furst	Seats (Total: 45)
	Meets August 29, 2022 - October 13, 2022	
	W 6:25pm - 10:00pm	BLD4 5308

BUSI736 Pricing Strategies for Sustainable Competitive Advantage

Credits: 2 Grading Method: Regular

Prerequisite: BUSI650. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Pricing is one of the most important marketing decisions a firm faces. This course will help participants to develop pricing strategies using actual proven concepts, processes and techniques, to align pricing strategies with corporate goals and objectives, to determine the value customers assign to products and services using competitive pricing analysis, and to optimize pricing using customer segmenting strategies. The course will focus on both economic and behavioral aspects of pricing, and evaluation of innovative pricing practices such as price matching, customized pricing, bundle pricing and product line pricing, covering both B2B and B2C markets. Instruction will be through a mix of case studies, pricing simulation games, hands-on exercises and discussions. The course will provide participants with an in-depth understanding of state-of-the-art pricing strategies, practices and techniques for making profitable and sustainable pricing decisions.

GS01	Bo Zhou	Seats (Total: 45)
	Meets October 24, 2022 - December 15, 2022	
	M 6:25pm - 10:00pm	BLD4 5308

BUSI737 Innovation & Product Development

Credits: 2 Grading Method: Regular

Prerequisite: BUSI650. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Focuses on the development of innovations, new products or new services from the perspective of a marketer. For an innovation to be successful in the market, it has to be customer centric: hence, in this course, we study how to develop and bring to market elegant and efficient solutions to strong customer needs. This is a fundamental business challenge, faced while working in a startup or in an established company; when developing a new product or a new service; and when serving customers who are individuals or large corporations.

BA01	Mary Beth Furst	Seats (Total: 45)
	Meets October 24, 2022 - December 15, 2022	
	Th 6:25pm - 10:00pm	BA 102

BUSI741 **Financial Strategy for Corporations**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI640. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Advanced course in corporate finance, focusing on the issues that firms face when they plan to raise external capital from financial markets. The focus is on the financing problems faced by mid-market to large firms and on capital raised from public markets. The forms of external finance vary from simple debt or equity to more complex securities that bundle with an element of risk management.

DC01	Pablo Slutzky	Seats (Total: 45)
	Meets August 29, 2022 - October 13, 2022	
	W 6:25pm - 10:00pm	DC C1

BUSI751 **Decision Analytics**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI630. Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

BA01	Alexander Estes	Seats (Total: 45)
	Meets October 24, 2022 - December 15, 2022	
	Tu 6:25pm - 10:00pm	ONLINE

BUSI758D **Special Topics in Business; Business Decoded**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

BA06	Paulo Prochno	Seats (Total: 50)
	Meets October 24, 2022 - December 15, 2022	
	Contact instructor or department for details.	

DC06	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Contact instructor or department for details.	Seats (Total: 50)
GS06	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Contact instructor or department for details.	Seats (Total: 50)

BUSI758E **Special Topics in Business; Business Decoded**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

BA06	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Contact instructor or department for details.	Seats (Total: 50)
DC06	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Contact instructor or department for details.	Seats (Total: 50)
GS06	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Contact instructor or department for details.	Seats (Total: 50)

BUSI758F **Special Topics in Business; Investment Fund Management**

(Perm req)

Credits: 3 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

DC01	Kenneth Fuller Tu 6:25pm - 10:00pm	Seats (Total: 45) DC C2

BUSI758J **Special Topics in Business; Digital Customer Journey**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

DC01	Pallassana Kannan **Meets October 24, 2022 - December 15, 2022** M 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI758K **Special Topics in Business; Portfolio Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Selected advanced topics in the various fields of graduate study in business.

BA01	Mark Loewenstein **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) ONLINE

BUSI758Q **Special Topics in Business; Business Consulting**

Credits: 4 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

BA01	Nicole Coomber **Meets August 29, 2022 - December 15, 2022** Th 6:25pm - 10:00pm	Seats (Total: 45) BA 103
DC01	Roy Thomason **Meets August 29, 2022 - December 15, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) DC C2

BUSI758Y **Special Topics in Business; Financial Stability and Risk Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

DC01	Haluk Unal **Meets October 24, 2022 - December 15, 2022** W 6:25pm - 10:00pm	Seats (Total: 45) ONLINE

BUSI759 **Independent Study in Business**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Business.

Contact department for information to register for this course.

BUSI781 **Marketing Emergent Technology**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

The many challenges and best practices of successfully marketing emergent technologies. The course will begin with a discussion of past successes and failures in marketing emergent technologies; followed by a study of the effective approaches and frameworks that help technology managers identify and understand customer needs. We will then focus on analyzing how the identified customer needs can guide design and development of emergent technologies. We will subsequently turn our attention to understanding how to translate customer needs and market conditions into effectively positioning our emergent technologies, with the intent of maximizing success when going to market.

Meets 11/19/22 & 12/3/22.

DC06	Yogesh Joshi **Meets November 7, 2022 - December 5, 2022** Sa 9:00am - 5:00pm	Seats (Total: 45) DC C3

BUSI785 **Project Management in Dynamic Environments**

Credits: 2 Grading Method: Regular

Restriction: Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)) ; or permission of BMGT-Robert H. Smith School of Business.

Addresses project management skills that are required by successful managers in increasingly competitive and faster-moving environments. Examines fundamental concepts of successful project management, and the technical and managerial issues, methods, and techniques.

BA01	Paul Shapiro **Meets October 24, 2022 - December 15, 2022** M 6:25pm - 10:00pm	Seats (Total: 50) ONLINE
DC01	Paul Shapiro **Meets August 29, 2022 - October 13, 2022** Tu 6:25pm - 10:00pm	Seats (Total: 45) DC C1

BUSI787 **Integrative Capstone**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

Provide students with an integrative experience to utilize the functional tools amassed in the MBA program and acquire new knowledge in the areas of international business, business ethics and executive/leadership presence, provide students with the opportunity to work with multiple functional areas at a time to drive business growth and utilize cases to address domestic and international challenges, enabling you to sharpen your skills in utilizing several methods for adding economic value when expanding globally. Additionally, students will raise awareness of best practices in building executive/leadership presence, as functional knowledge and business expertise is not enough to ensure successful career progression.

In-person class meetings will be held on 11/12 and 11/13.

DC01	Judy Frels **Meets October 5, 2022 - November 16, 2022** SaSu 8:30am - 5:30pm Contact instructor or department for details.	Seats (Total: 60) Location: TBA
DC02	Cristian Dezso **Meets October 5, 2022 - November 16, 2022** SaSu 8:30am - 5:30pm Contact instructor or department for details.	Seats (Total: 30) Location: TBA

BUSI788B **Introduction to Global Business Experience; Doing Business in Brazil**

(Perm req)

Credits: 2 Grading Method: Regular

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Su 12:00pm - 1:00pm Contact instructor or department for details.	Seats (Total: 13) VMH 1303

BUSI788J **Introduction to Global Business Experience; Doing Business in South Africa**

(Perm req)

Credits: 2 Grading Method: Regular

Introduction to the economic climate of the country and region, history, political influences on business landscape, and specific opportunities and threats of doing business in the destination country. Course is a prerequisite to short-term study abroad classes.

GX01	Bennet Zelner	Seats (Total: 18)
	Meets October 24, 2022 - December 15, 2022	
	Su 12:00pm - 1:00pm	VMH 1330
	Contact instructor or department for details.	

BUSI791 **Research and Development Strategy and Process**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course will educate technology management professionals on contemporary strategy, management approaches, and best-practices for research and development. The course will focus on private sector methods to manage technology programs, identify and specify technical requirements, communicate technology use and value, and assess new technologies and architectures. It will include instruction on technology scouting and assessing Technology Readiness Levels (TRLs). Through engagement with experts in creating and managing technology, students will also be exposed to human and behavioral factors that can influence technology adoption in the commercial and public sector.

Meets 9/3, 9/17, 10/1.

DC06	Joseph Bailey	Seats (Total: 50)
	Meets August 29, 2022 - October 2, 2022	
	Sa 9:00am - 5:00pm	DC C3

BUSI793 **Technology Entrepreneurship, Innovation and Commercialization**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

Best practices and challenges in organizing and cultivating new ideas into successful public and private sector technology ventures. The course provides an integrated strategic framework for innovation-based entrepreneurs and technology professionals. It will be structured to provide a deep understanding of the core strategic choices facing startup innovators, a synthetic framework for the development and implementation of entrepreneurial strategy in dynamic environments, and the ability to scale those ventures over time. A central theme of the course is that, to achieve competitive advantage, technology entrepreneurs must balance the process of experimentation and learning inherent to both technological advance and entrepreneurship, with the selection and implementation of a strategy that establishes a competitive advantage. The course identifies the key choices entrepreneurs make to take advantage of a novel opportunity and the logic of particular strategic commitments and positions that allow entrepreneurs to establish a competitive advantage.

Meets 10/15, 10/29, 11/5.

DC06	Brent Goldfarb **Meets October 3, 2022 - November 6, 2022** Sa 9:00am - 5:00pm	Seats (Total: 50) DC C3

BUSI799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

BUSM Full-Time MBA Program Fall 2022

Courses with the BUSM prefix are offered only for students in the full- time MBA program.

BUSM600 **Leadership and Teamwork**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BMGT600, BUSI662 or BUSM600.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

0101	Sheetal Singh **Meets October 24, 2022 - December 13, 2022** TuTh 10:00am - 11:50am	Seats (Total: 0) VMH 1333

BUSM602 **Introduction to Financial Accounting**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI610 or BUSM602.

Overview of financial accounting, periodic financial statements and the financial reporting process. Importance of financial statements as information source for creditors and investors and as a means by which managers can communicate information about their firms.

0101	Nick Seybert **Meets August 29, 2022 - October 17, 2022** MW 12:00pm - 1:50pm	Seats (Total: 0) VMH 2511

BUSM604 **Managerial Economics and Public Policy**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI681 or BUSM604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

0101	Rachelle Sampson	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	MW 10:00am - 11:50am	VMH 2511

BUSM606 **Data Driven Decision Making**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI630 or BUSM606.

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

0101	Tunay Tunca	Seats (Total: 40)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 2:00pm - 3:50pm	VMH 2511

BUSM612 **Marketing Management**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI650 or BUSM612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

0101	Judy Frels	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	MW 12:00pm - 1:50pm	VMH 2511

BUSM616 **Managerial Accounting**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: BUSI610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611 or BUSM616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

0101	Darlene Dennison	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 4:00pm - 5:50pm	VMH 1511

BUSM621 **Strategic and Transformational IT**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

0101	Il-Horn Hann	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 2:00pm - 3:50pm	VMH 1511

BUSM706 **Innovation & Product Development**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO758P or BUSM706.

Focuses on the development of innovations - new products or new services - from the perspective of a marketer. For an innovation to be successful in the market, it has to be customer-centric: hence, in this course, we study how to develop and bring to market elegant and efficient solutions to strong customer needs. This is a fundamental business challenge, faced while working in a startup or in an established company; when developing a new product or a new service; and when serving customers who are individuals or large corporations.

0101	Yogesh Joshi	Seats (Total: 35)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 10:00am - 11:50am	VMH 1505

BUSM710 Advanced Marketing Analytics Models

Credits: 2 Grading Method: Regular

Prerequisite: BUSM612. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK706 or BUSM705.

Introduction to modeling tools used to support marketing analysis and decision making. Applications in strategic marketing, marketing segmentation, new product development, sales promotion analysis, pricing, design of marketing mix, sales force allocation, and direct marketing. Spreadsheet driven cases and illustrative readings.

0101	Jie Zhang	Seats (Total: 35)
	Meets October 24, 2022 - December 13, 2022	
	MW 2:00pm - 3:50pm	VMH 1511

BUSM715 Digital Marketing

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program OR Permission of BMGT-Robert H. Smith School of Business.

It has been a quarter century since the commercial use of the Internet and the World Wide Web began and during that time the business landscape has changed at a frenetic pace. Large multinational corporations such as Alphabet/Google, Facebook, Amazon, Alibaba and eBay, unheard of twenty years ago, have emerged as key players in our modern economy. In 2017 holiday season, online sales increased over 16 percent of overall spending online in 2016 with online retail spending in the U.S., the highest percentage since tracking began in 1999. Sales made through mobile devices have increased at a rapid rate to around 22 to 40 percent of all online sales. Corporations now highlight the importance of creating a digital relationship with customers. Moreover, digital technologies and devices such as smartphones, smart products, the Internet of Things, Artificial Intelligence, and deep learning all promise significant transformations of consumers lives in the near future. It is against this backdrop this course seeks to understand how the developments in digital technology are re-shaping the process and the strategy of marketing in the broad space we call digital marketing.

0101	Pallassana Kannan	Seats (Total: 32)
	Meets August 29, 2022 - October 17, 2022	
	MW 2:00pm - 3:50pm	VMH 2505

BUSM738A **Investment Fund Management; Mayer Fund**

(Perm req)

Credits: 3 Grading Method: Regular

Provides second-year Master in Business Administration students with the opportunity to apply the skills learned in finance classes to actual investment decisions through management of an investment fund.

Contact department for information to register for this course.

BUSM741 **Financial Restructuring**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM610. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUFN752 or BUSM741.

Focuses on identifying ways to increase firm value through corporate restructuring. Specific topics include: mergers and tender offers, spin-offs, carve-outs, divestitures, takeover defense strategies, leveraged buy-outs, and international acquisitions. Additionally, the theory, practice and empirical evidence related to each of these topics will be covered. Emphasis will be placed on valuation analysis and strategic considerations.

0101	James Seward	Seats (Total: 35)
	Meets August 29, 2022 - October 17, 2022	
	MW 2:00pm - 3:50pm	VMH 2511

BUSM754 **Competitive and Collaborative Negotiation**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714 or BUSM754.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

0101	Vijaya Venkataramani	Seats (Total: 42)
	Meets August 29, 2022 - October 17, 2022	
	MW 10:00am - 11:50am	VMH 2505

BUSM758B **Special Topics in Business; Financial Stability and Risk Management**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Haluk Unal	Seats (Total: 35)
	Meets October 24, 2022 - December 13, 2022	
	MW 2:00pm - 3:50pm	VMH 2511

BUSM758J **Special Topics in Business; Financial Management I**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Richmond Mathews	Seats (Total: 0)
	Meets August 29, 2022 - October 17, 2022	
	TuTh 4:00pm - 5:50pm	VMH 2511

BUSM758N **Special Topics in Business; Managing Change**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Myeong-Gu Seo	Seats (Total: 41)
	Meets October 24, 2022 - December 13, 2022	
	MW 12:00pm - 1:50pm	VMH 1520

BUSM758P **Special Topics in Business; Financial Management II**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Richmond Mathews	Seats (Total: 0)
	Meets October 24, 2022 - December 13, 2022	
	TuTh 2:00pm - 3:50pm	Location: TBA

BUSM788B **Global Business Experience; Doing Business in Brazil**

(Perm req)

Credits: 2 Grading Method: Regular

Provides MBA students the opportunity to combine classroom learning and project research with seminars in a host country. The focus and locations visited will vary.

GX01	Paulo Prochno **Meets October 24, 2022 - December 15, 2022** Su 12:00pm - 1:00pm Contact instructor or department for details.	Seats (Total: 4) VMH 1303

BUSM798C **Business Consulting; Technology Entrepreneurship**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

0101	Brent Goldfarb W 4:00pm - 5:50pm	Seats (Total: 35) VMH 2505

BUSO Online MBA Program Fall 2022

BUSO600 **Leadership and Teamwork**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI662, BUSO600 or EMBA656.

Course examines concepts of team-building and leadership which are critical to managerial success. Topics include leadership, decision making, communication and conflict, work motivation, building effective teams, and organizational change and culture.

SO11	Neta Moye **Meets August 29, 2022 - October 13, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO12	Neta Moye **Meets August 29, 2022 - October 13, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO13	Gregory Marr **Meets August 29, 2022 - October 13, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO14	Roy Thomason	Seats (Total: 30)
	Meets August 29, 2022 - October 13, 2022	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO601 **Corporate Finance I**

Credits: 2 Grading Method: Regular

Prerequisite: BUSO602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introductory course in corporate financial management. The course outlines the financial concepts and techniques used to evaluate corporate decisions. The topics include the time value of money, valuation of common securities, capital budgeting methods, and discounted cash flow. The objectives are to introduce the language and structure of finance and to develop the ability to analyze financial decisions.

SO11	Elinda Kiss	Seats (Total: 22)
	Meets August 29, 2022 - October 13, 2022	
	M 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO603 **Data Analysis**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Many different skills are required in arriving at informed managerial decisions. Among these are analytical and quantitative skills. Data Analysis is one in a sequence of two courses that seeks to develop these two important skills. More formally, the goals of this course are: to introduce basic statistical techniques: summarizing and presenting data; confidence intervals and hypothesis tests; regression analysis.; to implement these techniques using spreadsheets; and to become active users of data analysis in making managerial decisions.

SO11	Sujin Kim	Seats (Total: 27)
	Meets October 24, 2022 - December 15, 2022	
	Tu 7:00pm - 8:30pm	ONLINE
	Class time/details on ELMs	ONLINE

SO12	Sujin Kim **Meets October 24, 2022 - December 15, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO13	Katherine Bobroske **Meets October 24, 2022 - December 15, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO14	Katherine Bobroske **Meets October 24, 2022 - December 15, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE

BUSO604 **Managerial Economics and Public Policy**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA681 or BUSO604.

Basic microeconomic principles used by firms, including supply and demand, elasticities, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

SO11	Rachelle Sampson **Meets August 29, 2022 - October 13, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO12	Rachelle Sampson **Meets August 29, 2022 - October 13, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE

SO13	Michael Lipsitz **Meets August 29, 2022 - October 13, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO14	Michael Lipsitz **Meets August 29, 2022 - October 13, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE

BUSO612 **Marketing Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: EMBA757 or BUSO612.

Analysis of marketing problems and evaluation of specific marketing efforts regarding the organization's products and services, pricing activities, channel selection, and promotion strategies in both domestic and international markets.

SO11	David Godes **Meets October 24, 2022 - December 15, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO12	David Godes **Meets October 24, 2022 - December 15, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE
SO13	Henry Boyd **Meets October 24, 2022 - December 15, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

SO14	Henry Boyd **Meets October 24, 2022 - December 15, 2022** Th 8:45pm - 10:45pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO614 **Strategic Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI690, BUSM614 or BUSO614.

Analyze and identify profit opportunities and threats in different industry and competitive environments; Analyze and identify a firm's valuable assets, resources and capabilities and how they might be protected, leveraged, and extended in the market; Learn how to organize your company to be the best prepared to adapt its strategy over time as the market environment changes; and how to use organic growth as well as mergers, acquisitions, joint ventures, alliances, and divestitures to ensure that the firm maintians the proper scale and scope to compete effectively over time.

SO31	Clarence Wesley **Meets October 24, 2022 - December 15, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Clarence Wesley **Meets October 24, 2022 - December 15, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Melanie Cohen **Meets October 24, 2022 - December 15, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO616 **Managerial Accounting**

Credits: 2 Grading Method: Regular

Prerequisite: BUSI610; or BUSO602; or BUSM602. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI611, BUSM616 or BUSO616.

Use of accounting data in corporate planning and control. Cost-volume- profit analysis, budgeting, pricing decisions and cost data, transfer pricing, activity-based management, performance measures, and standard costing.

SO31	Lu Zhang **Meets October 24, 2022 - December 15, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Lu Zhang **Meets October 24, 2022 - December 15, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Lu Zhang **Meets October 24, 2022 - December 15, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO624 **Operations Management**

Credits: 2 Grading Method: Regular, Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSI634, BUSM624 or BUSO624.

Operations management is concerned with efficient and effective design and operation of business processes for delivering products and/or services. Emphasis is given to process analysis and design, capacity management and bottlenecks, waiting lines and the impact of uncertainty in process performance, quality management, lean, six-sigma, and revenue management.

SO31	Yi Xu **Meets August 29, 2022 - October 13, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO32	Yi Xu **Meets August 29, 2022 - October 13, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Yi Xu **Meets August 29, 2022 - October 13, 2022** Th 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO700 **Fundamentals of Business**

Credits: 2 Grading Method: Sat-Fail

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

This course introduces students to the language of business. Topics covered include financial accounting, financial management, data models, strategy, leadership and teamwork, and a brief action learning project on innovation. Pre-work includes the DISC assessment, and a requires a passing grade on a spreadsheet pre-work course.

SO91	Mary Beth Furst **Meets August 19, 2022 - August 21, 2022** FSaSu 8:00am - 8:00pm	Seats (Total: 90) Location: TBA

BUSO701 **Integrative Business Capstone**

Credits: 2 Grading Method: Sat-Fail

Prerequisite: Students must have completed a minimum of 48 credit hours. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

This is an experiential course that involves an integrative business experience. This experience may be simulated through a software package or through content, speakers and events that are based in a realistic business setting. Students compete in teams. Each team makes decisions in areas such as human resources, compensation packages, geographic expansion through sales offices, debt versus equity financing, manufacturing and inventory management, marketing, including pricing, advertising and product design. The impact of each of these decisions flows through the three financial statements and results in financial outcomes and ratios that measure the success of each team. Additional metrics include stakeholders beyond investors such as employee morale, community engagement, and environmental impact. Students compete for financing and for customers. Multiple presentations are made by students during the simulation to explain their strategy, their tactics, and their planned investments.

SO92	Cristian Dezso **Meets December 18, 2022 - December 21, 2022** MTuWSu 8:00am - 8:00pm	Seats (Total: 55) Location: TBA

BUSO706 **Organizational Change**

Credits: 2 Grading Method: Regular

Prerequisite: BUSM600; or BUSO600; or BUSI662; or EMBA656. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUSO706 or BUSM755.

Develops the advanced knowledge and skills of MBA students who plan to work with organizations as change agents. Concrete and useful strategies, tools, and interventions for diagnosing organizational change situations, analyzing problems, and designing and implementing organizational change. Draws on literature from organizational behavior, human resource management and strategic management to identify models as prescriptions of change.

SO31	Myeong-Gu Seo **Meets August 29, 2022 - October 13, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO32	Myeong-Gu Seo **Meets August 29, 2022 - October 13, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO33	Sheetal Singh **Meets August 29, 2022 - October 13, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO711 **Executive Powers and Negotiation**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMO714, BUSM754 or BUSO711.

Increase negotiating self-confidence and improve capacity to achieve win-win solutions to organizational problems. Improve effectiveness at finding creative solutions to conflict.

SO31	Vijaya Venkataramani **Meets August 29, 2022 - October 13, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO32	Vijaya Venkataramani **Meets August 29, 2022 - October 13, 2022** M 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE
SO33	Rellie Rozin **Meets August 29, 2022 - October 13, 2022** Tu 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 27) ONLINE ONLINE

BUSO712 Entrepreneurship

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business.

Introduces students to tools and skills needed to create and grow a successful new venture. The course integrates research findings from a range of different practical and intellectual perspectives, including psychology, sociology, economics, strategic management, and history into practical, hands on lessons for an entrepreneur. Class projects teach skills to explore high-risk business ideas in inexpensive ways and allow students to experience the entrepreneurial environment.A startup is an organization formed to search for a repeatable and scalable business model (Steve Blank). Entrepreneurship is about pursuing hunches about solutions to customer problems and thereby creating value. Testing these hunches requires getting customers to evaluate solutions. It is difficult to attract resources (either human or financial) before it is known if the hunch is correct, but testing hunches requires resources. This course provides iterative tools to solve this chicken and egg problem. We will also focus on specific skill building exercises, such as pitching and networking.

SO11	Brent Goldfarb **Meets October 24, 2022 - December 15, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO731 Social Media and Web Analytics

Credits: 2 Grading Method: Regular

Prerequisite: BUSM612; or BUSO612; or BUSI650. Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BUMK758O, BUSO731 or BUSM716.

Examines the process of developing, implementing, and analyzing strategies for successfully marketing a variety of existing and potential products and services using electronic media. Besides well-established Internet marketing tools such as e-mail, search engines and display advertising, a substantial part of the course is dedicated to understanding social media, analyzing successful social media strategies, and tracking their effectiveness. The course offers hands-on experience with many popular as well as emerging techniques unique to electronic media. Special attention is given to metrics appropriate for the new media.

SO51	Siva Viswanathan **Meets October 24, 2022 - December 15, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE
SO52	Siva Viswanathan **Meets October 24, 2022 - December 15, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

BUSO751 **Supply Chain Risk Management**

Credits: 2 Grading Method: Regular

Restriction: Must be in Business and Management (Master's) program; or permission of BMGT-Robert H. Smith School of Business. Credit only granted for: BULM734, BUSM784 or BUSO751.

Supply chain managers are facing an increasingly volatile operating environment, with constant danger of trading community disruption from business, social and environmental risks. Students are provided with a working knowledge of both the core techniques of supply chain risk assessment and mitigation; as well as best practices in establishing formal corporate supply chain risk management programs. A semester-long X-Treme Supply Chain Simulation will enable students to gain hands-on experience in navigating a computer company through a complex and risky four quarters of global business operations.

SO51	Hongyi Zhang **Meets October 24, 2022 - December 15, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE

SO52	Hongyi Zhang **Meets October 24, 2022 - December 15, 2022** W 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 26) ONLINE ONLINE

BUSO758A **Special Topics in Business; Marketing Analytics**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

SO51	Yogesh Joshi **Meets October 24, 2022 - December 15, 2022** W 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 25) ONLINE ONLINE

BUSO758G **Special Topics in Business; Financial Restructuring**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

SO51	James Seward **Meets October 24, 2022 - December 15, 2022** Th 8:45pm - 10:15pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE

BUSO758J **Special Topics in Business; Corporate Finance II**

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

SO31	Ceyed Baiju **Meets August 29, 2022 - October 13, 2022** M 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE
SO32	Elinda Kiss **Meets August 29, 2022 - October 13, 2022** Tu 7:00pm - 8:30pm Class time/details on ELMs	Seats (Total: 28) ONLINE ONLINE

SO33	Elinda Kiss	Seats (Total: 28)
	Meets August 29, 2022 - October 13, 2022	
	Tu 8:45pm - 10:15pm	ONLINE
	Class time/details on ELMs	ONLINE

BUSO788B **Business Consulting; Doing Business in Brazil**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

GX01	Paulo Prochno	Seats (Total: 8)
	Meets October 24, 2022 - December 15, 2022	
	Su 12:00pm - 1:00pm	VMH 1303
	Contact instructor or department for details.	

BUSO788J **Business Consulting; Doing Business in South Africa**

(Perm req)

Credits: 2 Grading Method: Regular

Selected advanced topics in the various fields of graduate study in business.

GX01	Bennet Zelner	Seats (Total: 5)
	Meets October 24, 2022 - December 15, 2022	
	Su 12:00pm - 1:00pm	VMH 1330
	Contact instructor or department for details.	

CBMG Cell Biology & Molecular Genetics Fall 2022

CBMG688A **Special Topics in Cell Biology and Molecular Genetics; Research Experiences**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0201	Stephen Mount	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

CBMG688C **Special Topics in Cell Biology and Molecular Genetics**

Credits: 3 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

Jointly offered with BSCI420. Credit only granted for BSCI420 or CBMG688 C.

0101	Norma Andrews	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	MCB 1207

CBMG688D **Special Topics in Cell Biology and Molecular Genetics; Genetics: Cell Biology I - Structure and Function**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Wenxia Song, Sougata Roy	Seats (Total: 30)
	Meets October 17, 2022 - December 12, 2022	
	TuTh 4:00pm - 6:00pm	MCB 1207

CBMG688J **Special Topics in Cell Biology and Molecular Genetics; Genetics: Immunology and Host Defense**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Roy Mariuzza, David Mosser	Seats (Total: 12)
	Meets August 29, 2022 - October 14, 2022	
	MW 4:00pm - 6:00pm	BRB 3101

CBMG688K **Special Topics in Cell Biology and Molecular Genetics; Genetics: Molecular Virology**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Jeffrey DeStefano, Margaret Scull	Seats (Total: 20)
	Meets October 17, 2022 - December 12, 2022	
	MW 3:00pm - 5:00pm	BRB 1210

CBMG688M **Special Topics in Cell Biology and Molecular Genetics; Microbial Genetics**

Credits: 2 Grading Method: Regular, Audit

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Daniel Stein, Vincent Lee	Seats (Total: 10)
	Meets October 17, 2022 - December 12, 2022	
	MW 8:00am - 9:50am	MCB 2119

CBMG688P **Special Topics in Cell Biology and Molecular Genetics; Programming for Biology**

Credits: 2 Grading Method: Regular

Presentation and discussion of fundamental problems and special subjects in the topics of Cell Biology and Molecular Genetics.

0101	Stephen Mount, Najib El-Sayed	Seats (Total: 30)
	Meets October 17, 2022 - December 12, 2022	
	TuTh 9:00am - 10:50am	MCB 2119

CBMG699 **Special Problems in Cell Biology and Molecular Genetics**

Credits: 1-3 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG699D **Special Problems in Cell Biology and Molecular Genetics; Molecular Genetics: Bioinformatics and Computation Biology**

Credits: 1 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Contact department or instructor for details.

0101	Stephen Mount	Seats (Total: 20)
	W 12:00pm - 1:00pm	BRB 1103

CBMG699K **Special Problems in Cell Biology and Molecular Genetics; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Credits: 2 Grading Method: Regular

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

Cross-listed with BIOL608K, CHEM608K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)
	W 11:00am - 12:40pm	BPS 1208

CBMG699X **Special Problems in Cell Biology and Molecular Genetics; Host Pathogen Interactions**

Credits: 1 Grading Method: Regular, Audit

Emphasis is placed on research and discussion of current problems in the area of Cell Biology and Molecular Genetics.

0101	David Mosser	Seats (Total: 20)
	F 3:00pm - 4:00pm	ONLINE

CBMG799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Master's Thesis Research in Cell Biology and Molecular Genetics.

Contact department for information to register for this course.

CBMG898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Pre-candidacy Research.

Contact department for information to register for this course.

CBMG899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral Dissertation Research.

Contact department for information to register for this course.

CCJS Criminology and Criminal Justice Fall 2022

CCJS100 **Introduction to Criminal Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

0101	Justine Madoo	Seats (Total: 30)	
	MW 10:00am - 10:50am	LEF 2205	
	M 2:00pm - 2:50pm	TLF 1103	Discussion

0102	Justine Madoo MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) LEF 2205 EDU 2119	Discussion
0103	Justine Madoo MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 ASY 3215	Discussion
0104	Justine Madoo MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 SQH 1121	Discussion
0105	Justine Madoo MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 KNI 1105	Discussion
0106	Justine Madoo MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) LEF 2205 ASY 3203	Discussion
0107	Justine Madoo MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 TWS 0214	Discussion
0108	Justine Madoo MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 LEF 1201	Discussion
0201	Justine Madoo MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) LEF 2205 JMZ 0122	Discussion
0202	Justine Madoo MW 11:00am - 11:50am Tu 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 TYD 2106	Discussion
0203	Justine Madoo MW 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 VMH 1207	Discussion

0204	Justine Madoo MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 30) LEF 2205 JMZ 0122	Discussion
0205	Justine Madoo MW 11:00am - 11:50am Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 EDU 3315	Discussion
0206	Justine Madoo MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 SQH 1103	Discussion
0207	Justine Madoo MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 30) LEF 2205 SQH 2120	Discussion
0208	Justine Madoo MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 TLF 1101	Discussion
FC01	Madeline Romm MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 0102	

CCJS105 **Introduction to Criminology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.

0101	Jessica Morabito MW 10:00am - 10:50am M 9:00am - 9:50am	Seats (Total: 30) SKN 0200 LEF 1220	Discussion
0102	Jessica Morabito MW 10:00am - 10:50am M 11:00am - 11:50am	Seats (Total: 30) SKN 0200 TWS 1106	Discussion
0103	Jessica Morabito MW 10:00am - 10:50am M 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 LEF 1201	Discussion

0104	Jessica Morabito MW 10:00am - 10:50am M 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 LEF 0135	Discussion
0105	Jessica Morabito MW 10:00am - 10:50am W 9:00am - 9:50am	Seats (Total: 30) SKN 0200 LEF 1201	Discussion
0106	Jessica Morabito MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 30) SKN 0200 ASY 3211	Discussion
0107	Jessica Morabito MW 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) SKN 0200 TWS 0205	Discussion
0108	Jessica Morabito MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 30) SKN 0200 ASY 3215	Discussion
0201	Jessica Morabito TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 30) SKN 0200 ARC 1101	Discussion
0202	Jessica Morabito TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 30) SKN 0200 TWS 0320	Discussion
0203	Jessica Morabito TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 LEF 0135	Discussion
0204	Jessica Morabito TuTh 12:30pm - 1:20pm Tu 3:00pm - 3:50pm	Seats (Total: 30) SKN 0200 SQH 2120	Discussion
0205	Jessica Morabito TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 30) SKN 0200 SQH 2120	Discussion

0206	Jessica Morabito TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 30) SKN 0200 SQH 1101	Discussion
0207	Jessica Morabito TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 30) SKN 0200 EDU 3315	Discussion
0208	Jessica Morabito TuTh 12:30pm - 1:20pm Th 3:00pm - 3:50pm	Seats (Total: 30) SKN 0200 SQH 2120	Discussion
FC01	Justin Bernstein MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) TYD 1132	

CCJS200 **Statistics for Criminology and Criminal Justice**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: CCJS100 or CCJS105; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH135, MATH140). Restriction: Must be in Criminology and Criminal Justice program; or permission of BSOS-Criminology & Criminal Justice department. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

0201	Greg Midgette TuTh 9:30am - 10:45am Th 11:00am - 11:50am	Seats (Total: 30) LEF 2205 EDU 3315	Discussion
0202	Greg Midgette TuTh 9:30am - 10:45am Th 12:30pm - 1:20pm	Seats (Total: 30) LEF 2205 ESJ B0322	Discussion
0203	Greg Midgette TuTh 9:30am - 10:45am Th 2:00pm - 2:50pm	Seats (Total: 30) LEF 2205 LEF 0135	Discussion

0204	Greg Midgette TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 30) LEF 2205 SQH 1105	Discussion
0205	Greg Midgette TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 30) LEF 2205 VMH 1207	Discussion
0206	Greg Midgette TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 30) LEF 2205 LEF 2166	Discussion

CCJS225 **Responses to Violence**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Conflict is unfortunately resolved through violence in a number of settings. It ranges from interpersonal to international in its scope. This course investigates the strengths and weakness of a number of resolutions to reducing violence over the course of history using both state centered and informal control.

0101	Brooklynn Hitchens TuTh 12:30pm - 1:45pm	Seats (Total: 60) TWS 1100	
0301	Min Xie MW 2:00pm - 3:15pm	Seats (Total: 60) SQH 1119	

CCJS230 **Criminal Law in Action**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.

0101	Cortney Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 100) SQH 1120	
0201	Russell Hamill W 4:00pm - 6:30pm	Seats (Total: 100) SQH 1120	

CCJS300 **Criminological and Criminal Justice Research Methods**

(Perm req) Credits: 3 Grading Method: Regular General Education: DSSP

Prerequisite: CCJS100 and CCJS105; and (PSYC200, CCJS200, ECON321, BMGT230, or SOCY201).

Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

0101	Laure Brooks MWF 9:00am - 9:50am	Seats (Total: 48) LEF 2166
0201	Laure Brooks MWF 11:00am - 11:50am	Seats (Total: 48) LEF 2166
0301	Alan Lehman TuTh 12:30pm - 1:45pm	Seats (Total: 60) TYD 1101
0401	Alan Lehman TuTh 11:00am - 12:15pm	Seats (Total: 60) TYD 0102
ESG1	Thomas Alexander W 11:00am - 12:15pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) ONLINE ONLINE

CCJS301 Fundamentals in Criminal Justice

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be enrolled at The Universities at Shady Grove; and must be in the Criminal Justice minor; or by permission of department; and must not be in the Criminology and Criminal Justice major.

Provides an overview of the three major components of the American criminal justice system: police, courts, and corrections. Each component will be explored in its development over time as well as various issues surrounding each component. This course will also cover important issues that are relevant to current debates including race, reentry, technology and crime, juvenile justice, and future directions for criminal justice.

ESG1	Cortney Fisher Class time/details on ELMs *Open to all UMD students at USG who are not CCJS majors, contact ccjsusg@umd.edu for permission to register.*	Seats (Total: 40) ONLINE

CCJS310 Criminal Investigations

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in detection, investigation, and solution of crime. Students will be taught basic and advanced investigative techniques utilized by law enforcement agencies. Analysis of actual cases will be used to demonstrate practical uses of these techniques.

ESG1	David Anderson	Seats (Total: 40)
	Th 9:30am - 10:45am Contact instructor or department for details.	BLD3 3202
	Restricted to BSCI students at Shady Grove.	

CCJS318C **Special Topics in Criminology & Criminal Justice; Public Speaking for Criminal Justice Professionals**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in various aspects of the field of criminology and criminal justice will be covered.

Prerequisites: CCJS100 and CCJS105. Restriction: Must be a major within the BSOS-Criminology & Criminal Justice department.

0101	Thomas Mauriello	Seats (Total: 30)
	Tu 2:00pm - 4:30pm	MMH 2401

CCJS318E **Special Topics in Criminology & Criminal Justice; The Hostage Negotiator: Crisis Communication Skills**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in various aspects of the field of criminology and criminal justice will be covered.

ESG1	Edward Pallas	Seats (Total: 40)
	Th 2:00pm - 4:30pm	BLD3 4220
	Restricted to CCJS students at Shady Grove.	

CCJS320 **Introduction to Criminalistics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100 and CCJS230.

An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

Students must pay a $53.00 lab fee.

0101	Thomas Mauriello Class time/details on ELMs M 10:00am - 12:00pm	Seats (Total: 24) ONLINE MMH 2401	 Lab
0201	Thomas Mauriello Class time/details on ELMs M 1:00pm - 3:00pm	Seats (Total: 24) ONLINE MMH 2401	 Lab
0301	Danielle O'Neill Class time/details on ELMs M 4:00pm - 6:00pm	Seats (Total: 24) ONLINE MMH 2401	 Lab

CCJS325 **Slavery in the Twenty First Century: Combating Human Trafficking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

The trafficking of human beings in its historical, legal, economic, political and social contexts. Scope of the global problem, different forms of human trafficking, and regional trends and practices. Roles of government, the international community and individual actors. Strategies to combat trafficking.

0101	Jessica Morabito MW 2:00pm - 3:15pm	Seats (Total: 60) TWS 1310	
0401	Jessica Morabito TuTh 9:30am - 10:45am	Seats (Total: 60) TWS 0320	

CCJS332 **Major Transitions: From Undergraduate to Professional**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Criminology and Criminal Justice program; and sophomore standing or higher.

This course is designed to assist criminology and criminal justice students explore career opportunities. Topics will include: graduate school, law school, career opportunities in federal, state, local, and public agencies, resume writing, and internships.

0101	Nicole Jackson W 12:00pm - 12:50pm	Seats (Total: 45) LEF 2166	

CCJS340 **Policing**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

Critical issues relating to policing. Topics include police discretion, role of police, use of force, misconduct, police research, administration, personnel, and etc.

0101	Laure Brooks MWF 10:00am - 10:50am	Seats (Total: 100) TYD 0117
0201	David Mitchell M 5:00pm - 7:30pm	Seats (Total: 75) SYM 0200
ESG1	Nicole Romeiser Tu 11:00am - 1:30pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 4211

CCJS342 **Corrections**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department. Credit only granted for: CCJS342 or CCJS452.

Examination of the American correctional system. Identification of historical and contemporary themes, issues, and trends. Evaluation of correctional policies, practices and research.

0101	Rachel Ellis MW 2:00pm - 3:15pm	Seats (Total: 60) TYD 0102
0201	Lauren Porter TuTh 12:30pm - 1:45pm	Seats (Total: 60) SYM 0200
0301	Rachel Ellis MW 3:30pm - 4:45pm	Seats (Total: 60) SQH 1119

CCJS345 **Courts and Sentencing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100. Restriction: Must be in a major within the BSOS-Criminology & Criminal Justice department.

Contemporary issues in the American court system such as prosecution, sentencing and punishment. Theoretical perspectives on courtroom decision-making integrated with empirical research. Courts and sentencing processes, including initial charging, pretrial detention and final sentencing outcomes. Innovations in courts and sentencing.

0101	Brett Lacey MWF 12:00pm - 12:50pm	Seats (Total: 60) TYD 1101	
0401	Cortney Fisher TuTh 2:00pm - 3:15pm	Seats (Total: 75) ESJ 1215	
ESG1	Carlotta Woodward M 12:30pm - 1:45pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 2230 ONLINE	 Discussion

CCJS352 **Drugs and Crime**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS100.

An analysis of the role of criminal justice in the control of drug use and abuse.

0101	Brett Lacey MWF 11:00am - 11:50am	Seats (Total: 60) TYD 1101

CCJS358B **Special Topics in Study Abroad III; Criminology in Scandanavia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS358E **Special Topics in Study Abroad III; Drugs and Drug Prevention in Central Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS358G **Special Topics in Study Abroad III; History of the Mafia and Global Crime**

Credits: 3 Grading Method: Regular

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CCJS359 **Field Training in Criminology and Corrections**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

Prerequisites: CCJS 105 or CRIM 220; and CCJS 350 or CRIM 450; and permission of department. For majors only.

Contact department for information to register for this course.

CCJS370 **Race, Crime and Criminal Justice**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

Prerequisite: CCJS100.

Role and treatment of racial/ethnic minorities in the criminal justice system. Course will provide students with historical and theoretical framework for understanding this dynamic.

0201	Brooklynn Hitchens TuTh 2:00pm - 3:15pm	Seats (Total: 60) ESJ 2212
ESG1	Richard Harris Th 11:00am - 1:30pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 4215

CCJS386 **Experiential Learning**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Criminology & Criminal Justice department; and junior standing or higher.

Contact department for information to register for this course.

CCJS388H **Independent Reading Course in Criminology and Criminal Justice**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Designed for the needs of honor students in criminology and criminal justice.

0101	Bianca Bersani M 2:00pm - 4:30pm	Seats (Total: 20) SQH 1117

CCJS389H **Independent Research in Criminology and Criminal Justice**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Independent Research for CCJS Departmental Honors students.

0101	Bianca Bersani	Seats (Total: 20)
	Tu 4:00pm - 6:30pm	ESJ 2309

CCJS398 **Law Enforcement Field Training**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Supervised, structured and focused field training in law enforcement agencies.

Prerequisite: junior standing. For majors only.

Contact department for information to register for this course.

CCJS399 **Independent Study in Criminology and Criminal Justice**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under direction and supervision of a faculty member.

Prerequisite: written consent of faculty under whose direction the study is to be performed, and at least twelve hours of CCJS credits.

Contact department for information to register for this course.

CCJS418D **Seminar in Criminology and Criminal Justice; Evolving Legal Issues**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100 and CCJS230.

0101	David Salem	Seats (Total: 50)
	W 6:00pm - 8:30pm	TYD 1118

CCJS418E **Seminar in Criminology and Criminal Justice; Applications of Data Science in Criminology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS100, CCJS105, CCJS200 and CCJS300. Restriction: Permission of department.

0101	Zubin Jelveh	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	ONLINE

CCJS418K **Seminar in Criminology and Criminal Justice; Police-Community Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100, CCJS105, and CCJS300. Restriction: Permission of department.

0101	Rod Brunson Tu 4:00pm - 6:30pm	Seats (Total: 50) TYD 0117

CCJS418P **Seminar in Criminology and Criminal Justice; Marijuana, Law and Society**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisites: CCJS100 and CCJS105.

0101	Alan Lehman TuTh 2:00pm - 3:15pm	Seats (Total: 50) ASY 2203

CCJS418Q **Seminar in Criminology and Criminal Justice; Crime and Place**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of interest in the field of Criminology and Criminal Justice will be covered.

Prerequisite: CCJS 100, CCJS 105, and CCJS 300.

0101	Maria Velez MWF 11:00am - 11:50am	Seats (Total: 50) SQH 1119

CCJS450 **Advanced Juvenile Delinquency**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300. Credit only granted for: CCJS350 or CCJS450.

Examination of juvenile delinquency in the United States. Nature and extent of juvenile delinquency, historical approaches, sociological and criminological theories and research, social contexts including the institutions of families, schools, and peers, and social responses. Prevention, punishment, and treatment programs, both within and outside of the juvenile justice and criminal justice systems.

0101	Justine Madoo TuTh 9:30am - 10:45am	Seats (Total: 49) TYD 2106
0201	Kathryn Kozey Class time/details on ELMs	Seats (Total: 60) ONLINE

CCJS451 **Crime and Delinquency Prevention**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS105 and CCJS300.

Methods and programs in prevention of crime and delinquency.

0101	Brett Lacey TuTh 12:30pm - 1:45pm	Seats (Total: 60) SQH 1120
0201	Brett Lacey TuTh 9:30am - 10:45am	Seats (Total: 50) TYD 1132
ESG1	Thomas Alexander W 9:30am - 10:45am Class time/details on ELMs *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) ONLINE ONLINE

CCJS453 **White Collar and Organized Crime**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS300; and (CCJS350 or CCJS105).

Definition, detection, prosecution, sentencing and impact of white collar and organized crime. Special consideration given to the role of federal law and enforcement practices.

ESG1	Alan Drew Tu 9:30am - 12:00pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 2225

CCJS454 **Contemporary Criminological Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CCJS300 and CCJS105.

Examination of the main theoretical accounts that explain the underlying causes of criminal behaviors. Explore how individual choices, socialization experiences, biological factors and social structure affect criminal behaviors.

0101	Wade Jacobsen MWF 10:00am - 10:50am	Seats (Total: 50) ARC 1101
0201	Maria Velez MWF 1:00pm - 1:50pm	Seats (Total: 50) VMH 1207

CCJS498G **Selected Topics in Criminology and Criminal Justice; Gangs**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

Prerequisite: CCJS 100 and CCJS 105.

0101	Justine Madoo TuTh 11:00am - 12:15pm	Seats (Total: 49) TYD 2106

CCJS498K **Selected Topics in Criminology and Criminal Justice; Child Abuse Investigations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Louis Morlier W 6:30pm - 9:00pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 3220

CCJS498L **Selected Topics in Criminology and Criminal Justice; Ethics in Criminal Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Cortney Fisher M 9:30am - 12:00pm *Restricted to CCJS students at Shady Grove.*	Seats (Total: 40) BLD3 4215

CCJS498N **Selected Topics in Criminology and Criminal Justice; Community Policing**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Kristina Hedgepeth W 3:30pm - 5:00pm Class time/details on ELMs *Restricted to CCJS students at Shady Grove*	Seats (Total: 40) BLD3 4211 ONLINE

CCJS498X **Selected Topics in Criminology and Criminal Justice; Forensic Investigations in the Criminal Justice System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

ESG1	Heidi Bresee W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 40) BLD3 3220 ONLINE

Restricted to CCJS and BSCI students at Shady Grove.

CCJS600 Criminal Justice

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral)) ; or permission of BSOS-Criminology & Criminal Justice department. Formerly: CJUS600.

Current concept of criminal justice in relationship to other concepts in the field. Historical perspective. Criminal justice and social control. Operational implications. Systemic aspects. Issues of evaluation.

0101	Brian Johnson W 4:00pm - 6:45pm	Seats (Total: 20) LEF 2165E

CCJS604 Policy Analysis Project

(Perm req)

Credits: 3 Grading Method: Regular

An application of statistical and conceptual tools to criminal justice data in the student's area of concentration, resulting in a paper reporting the conceptualization, analytic methods and results. The topic of the independent study will be chosen through individual consultation with the instructor.

Contact department for information to register for this course.

CCJS620 Fundamentals of Criminological Research

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: CCJS498D or CCJS620. Formerly: CCJS498D.

Designed to help criminology students understand and apply three important components of statistics: decriptive statistics (including probability theory), fundamentals of statistical inference, and regression analysis. Course assumes familiarity with basic descriptive statistics. The emphasis of the classes on descriptive statistics is the calculation and interpretation of summary statistical measures for describing raw data. Covers the basic rules of probability and different probabilistic processes that could describe criminal activity. The sessions on fundamentals of statistical inferences are designed to provide background for executing and interpreting hypothesis tests and confidence intervals. The latter portion of the course focuses on regession analysis. Uses the statistical software, Stata.

0101	Sarah Tahamont	Seats (Total: 35)
	Tu 4:00pm - 6:45pm	LEF 2165E

CCJS631 **Ethics in Criminal Justice**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Criminology & Criminal Justice department.

Provides students with an overview of the major ethical perspectives, which are typically used to inform and justify the workings of the criminal justice system. The course draws on a number of case studies in order to introduce students to a broad range of ethical dilemmas, and students develop and hone a decision-making process designed to resolve such dilemmas.

PLL1	Lester Andrist	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

CCJS632 **Making Sense of Criminal Justice Methods and Statistics**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Graduate Certificate in Criminal Justice Administration (Z130); or permission from BSOS-Criminology & Criminal Justice department.

Teaches students how to better understand research that relies on statistics and to then apply this understanding to common criminal justice problems. The course will introduce basic statistical concepts that are necessary for analyzing crime and evaluating criminal justice programs and policies. Students will learn to interpret and assess the quality of reports that present crime trends, descriptive statistics, correlations, data mining efforts, geo-spatial and social media analytics, risk analysis for repeat offenders, hot spots of crime, and experimental research. By the end of the semester, students will learn to assess critically the quality of published research and evaluate its implications for criminal justice policy.

PLL1	Lauren Porter	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

CCJS650 **Research Practicum**

Credits: 3 Grading Method: Regular

Provides the opportunity for students to develop and complete a research project, which will provide information on research proficiency for the determination of advancement to doctoral candidacy

0101	Min Xie	Seats (Total: 20)
	M 4:00pm - 6:45pm	LEF 2207

CCJS653 Seminar in Corrections

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CCJS651; or students who have taken courses with comparable content may contact the department. Formerly: CRIM653.

Development, operation and future of correctional systems.

0101	Lauren Porter	Seats (Total: 20)
	Th 3:00pm - 5:45pm	LEF 2207

CCJS654 History of Criminological Thought

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CCJS454; or students who have taken courses with comparable content may contact the department. Formerly: CRIM654.

A study of the development of criminological thought from antiquity to the present.

0101	Wade Jacobsen	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	SQH 2113

CCJS699 Special Criminological Problems

Credits: 1-3 Grading Method: Regular, Audit

Supervised study of a selected problem in the field of criminal justice.

Contact department for information to register for this course.

CCJS699B Special Criminological Problems; Comparative Criminology

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Supervised study of a selected problem in the field of criminal justice.

0101	John Braithwaite	Seats (Total: 20)
	M 4:00pm - 6:45pm	LEF 2165E

CCJS710 Advanced Statistics Methods - Limited Dependent Variables

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed an approved doctoral level statistics course. Formerly: CRIM710.

Application of advanced data analysis strategies to criminological and criminal justice problems, with specific focus on limited dependent variables.

0101	Robert Brame Th 4:00pm - 6:45pm	Seats (Total: 15) LEF 1171

CCJS720 **Criminal Justice System Planning: Policy Analysis for Crime Control**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed 1 course in research methodology; and 1 course in CCJS. Formerly: CJUS720.

System theory and method; examination of planning methods and models based primarily on a systems approach to the operations of the criminal justice system.

0101	Greg Midgette W 4:00pm - 6:45pm	Seats (Total: 20) SQH 2113

CCJS799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CCJS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CCJS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Doctoral dissertation research in criminal justice and criminology.

Contact department for information to register for this course.

CHBE Chemical and Biomolecular Engineering Fall 2022

CHBE100 **Exploring ChBE**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: Permission of instructor; and permission of ENGR-Chemical & Biomolecular Engineering department. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department.

Overview of the specializations and career paths available in chemical and biomolecular engineering. Academic planning, policies and resources will be covered including introduction to undergraduate research, study abroad, internship and co-op opportunities as well as chemical engineering student groups. A peer mentoring program will enable students to interact with successful upper-class chemical engineering students and build their chemical engineering peer network.

0101	Deborah Goldberg, Ganesh Sriram	Seats (Total: 25)	
	W 3:00pm - 3:50pm	CCC 1105	

CHBE250 **Computer Methods in Chemical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: CHBE101; and must have completed or be concurrently enrolled in MATH241. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE250 or ENCH250. Formerly: ENCH250.

Algorithm development and application of software to the analysis of chemical engineering problems. File management and editing, graphics and numerical methods. Use of spreadsheets, statistics/math software and process simulators for the design of chemical process equipment.

0101	Hannah Zierden	Seats (Total: 80)	
	MWF 10:00am - 10:50am	CHE 2108	
	F 11:00am - 11:50am	CHE 2110	Discussion

CHBE301 **Chemical and Biomolecular Engineering Thermodynamics I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE101; and must have completed or be concurrently enrolled in CHBE250 and MATH241. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH300 or CHBE301. Formerly: ENCH300.

Principles of thermodynamics and their application to engineering problems. First and second laws of thermodynamics, properties of gases, liquids and solids, phase equilibrium, flow and non-flow systems, energy conversion, production of work from heat, thermodynamic analysis of processes, equilibrium stage operations and the thermodynamics of chemically reacting systems.

0101	Peter Kofinas	Seats (Total: 95)	
	TuTh 2:00pm - 3:15pm	JMP 3201	
	W 11:00am - 11:50am	CHE 2110	Discussion

CHBE333 **Chemical Engineering Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing; and must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE333 or ENCH333. Formerly: ENCH333.

To develop oral communication skills through a series of class presentations of current chemical engineering topics.

0101	Nam Sun Wang W 12:00pm - 12:50pm	Seats (Total: 15) Location: TBA
0102	Nam Sun Wang M 11:00am - 11:50am	Seats (Total: 15) AJC 2119
0103	Nam Sun Wang W 1:00pm - 1:50pm	Seats (Total: 15) AJC 2119

CHBE369 **Teaching Experiences in Chemical Engineering**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Students will obtain pedagogical experience by assisting with the teaching of undergraduate courses in Chemical and Biomolecular Engineering.

Contact department for information to register for this course.

CHBE410 **Statistics and Design of Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE410 or ENCH476. Formerly: ENCH476.

An introduction to probability, statistics, and design of experiments for chemical engineers.

0101	Deborah Goldberg MWF 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 80) ATL 1113 ATL 1113	 Discussion

CHBE422 **Chemical and Biomolecular Engineering Transport Phenomena I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE101, CHBE250, MATH241, and MATH246. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE422 or ENCH422. Formerly: ENCH422.

Principals of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

0101	Paul Albertus	Seats (Total: 65)	
	TuTh 3:30pm - 4:45pm	CHE 2108	
	F 1:00pm - 1:50pm	CHE 2108	Discussion

CHBE437 **Chemical and Biomolecular Engineering Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE424, CHBE426, and CHBE440. Restriction: Must be in a major within ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE437 or ENCH437. Formerly: ENCH437.

Application of chemical engineering process and unit operation principals in small-scale semi-commercial equipment. Data from experimental observations are used to evaluate performance and efficiency of operations. Emphasis on correct presentation of results inreport form.

0201	Audaldo Ponce, Chen Zhang	Seats (Total: 24)	
	Tu 11:00am - 3:00pm	CHE 1145	Lab
	Tu 10:00am - 10:50am	CHE 2118	Discussion
0301	Audaldo Ponce, Chen Zhang	Seats (Total: 24)	
	Th 11:00am - 3:00pm	CHE 1145	Lab
	Th 10:00am - 10:50am	EGR 3102	Discussion
0401	Chen Zhang, Audaldo Ponce	Seats (Total: 24)	
	F 1:00pm - 5:00pm	CHE 1145	Lab
	F 10:00am - 10:50am	CHE 2136	Discussion

CHBE440 **Chemical Kinetics and Reactor Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE301, MATH241, and MATH246. Restriction: Must be in Engineering: Chemical program; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE440 or ENCH440. Formerly: ENCH440.

Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

0101	Srinivasa Raghavan	Seats (Total: 60)	
	MWF 2:00pm - 2:50pm	CHE 2108	
	M 1:00pm - 1:50pm	CHE 2108	Discussion

CHBE442 **Chemical and Biomolecular Systems Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE424 and CHBE426. Credit only granted for: CHBE442 or ENCH442. Formerly: ENCH442.

Dynamic response applied to process systems. Goals and modes of control, Laplace transformations, analysis and synthesis of simple control systems, closed loop response, dynamic testing.

0101	Kyu Yong Choi	Seats (Total: 100)	
	MWF 12:00pm - 12:50pm	CHE 2110	
	W 4:00pm - 4:50pm	CHE 2110	Discussion

CHBE444 **Process Engineering Economics and Design I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHBE424, CHBE426, and CHBE440. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department; and permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE444 or ENCH444. Formerly: ENCH444.

Principles of chemical engineering economics and process design. Equipment sizing and costing. Economic evaluation of projects. Flowsheet synthesis. Introduction to flowsheet simulators and concepts of flowsheet optimization. Synthesis of Heat Exchanger Networks and Distillation Sequences.

0101	Ganesh Sriram	Seats (Total: 37)	
	TuTh 3:30pm - 4:45pm	ESJ 1215	
	W 11:00am - 11:50am	PHY 1219	Discussion
0102	Ganesh Sriram	Seats (Total: 37)	
	TuTh 3:30pm - 4:45pm	ESJ 1215	
	W 2:00pm - 2:50pm	JMP 2202	Discussion

CHBE452 **Introduction of Machine Learning in Chemical Engineering**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: Basic knowledge of chemical engineering, materials science, ordinary differential equations, and Python is desirable. Restriction: Permission of Department or Instructor. Jointly offered with: CHBE652. Credit only granted for: CHBE452 or CHBE652.

Introduction of data science and machine learning approaches to modern problems in chemical engineering and materials science. This course develops data science approaches, including their foundational mathematical and statistical basis, and applies these methods to data sets of limited size and precision. Methods for regression and clustering will be developed and applied, with an emphasis on validation and error quantification. Techniques that will be developed include linear and nonlinear regression, clustering and logistic regression, dimensionality reduction, unsupervised learning, and artificial neural networks. These methods will be applied to a range of engineering problems, including conducting polymers, stretchable conductors, organic synthesis, and quality control in manufacturing.

0101	Tianle Chen, Po-Yen Chen	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	AJC 2119

CHBE468 **Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE468D **Research; Quantitative Biotechnology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

0101	William Bentley	Seats (Total: 10)
	TuTh 9:30am - 10:45am	AJC 2121

CHBE469 **Special Projects**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special project under the direction of a faculty member. Comprehensive reports are required.

Contact department for information to register for this course.

CHBE472 **Control of Air Pollution Sources**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE672. Credit only granted for: CHBE472, CHBE672 or ENCH672.

Sources and effects of air pollutants, regulatory trends, atmospheric dispersion models, fundamentals of two-phase flow as applied to air pollution and air pollution control systems, design of systems for control of gases and particulate matter.

0101	Akua Asa-Awuku	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ESJ 1309

CHBE474 **Biopharmaceutical Process Development and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BIOE120; and permission of instructor. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE674. Credit only granted for: CHBE474, BIOE489T, ENCH648D or CHBE674.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 17)
	MW 1:00pm - 2:15pm	ATL 1114

CHBE486 **Heterogeneous Catalysis for Energy Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHBE302, CHBE424, and CHBE440; and permission of instructor. Restriction: Must be in a major within the ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: CHBE486, CHBE686 or ENCH686.

Introduction to heterogeneous catalytic science and technology for energy conversion and hydocarbon processing. Preparation and mechanistic characterization of catalyst systems, kinetics of catalyzed reactions, adsorption and diffusion influences in heterogenious reactions. An overview of heterogeneous catalysis in various energy-related applications, including petroleum refining, chemicals from biomass, valorization of shale gas, and CO2 utilization will be introduced.

0101	Dongxia Liu	Seats (Total: 37)
	MWF 9:00am - 9:50am	EGR 0108

CHBE608 **Research in Chemical Engineering**

(Perm req)

Credits: 1 Grading Method: Regular

Students gain experience in research through lab rotations and experience presenting their findings.

Contact department for information to register for this course.

CHBE609 **Graduate Seminar**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Seminar in Chemical and Biomolecular Engineering

0101	Paul Albertus	Seats (Total: 35)
	F 11:00am - 12:30pm	CHE 2108

CHBE610 **Chemical Engineering Thermodynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CHBE301; and CHBE302. Or students who have taken courses with comparable content may contact the department. Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Credit only granted for: ENCH610 or CHBE610. Formerly: ENCH610.

Advanced application of the general thermodynamic methods to chemical engineering problems. First and second law consequences; estimation and correlation of thermodynamic properties; phase and chemical reaction equilibria.

0101	Jeffery Klauda	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	CHE 2140

CHBE620 **Methods of Engineering Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MATH246 and CHBE250; or students who have taken courses with comparable content may contact the department. Credit only granted for: ENCH620 or CHBE620. Formerly: ENCH620.

Application of selected mathematical techniques to the analysis and solution of engineering problems; included are the applications of matrices, vectors, tensors, differential equations, integral transforms, and probability methods to such problems as unsteady heat transfer, transient phenomena in mass transfer operations, stagewise processes, chemical reactors, process control, and nuclear reactor physics.

0101	Nam Sun Wang	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	CHE 2140

CHBE648 **Special Problems in Chemical Engineering**

(Perm req)

Credits: 1-16

Grading Method: Regular, Audit

Research project under the direction of a faculty member.

Contact department for information to register for this course.

CHBE652 **Introduction of Machine Learning in Chemical Engineering**

Credits: 3 Grading Method: Regular, Audit

Recommended: Basic knowledge of chemical engineering, materials science, ordinary differential equations, and Python is desirable. Restriction: Permission of Department or Instructor. Jointly offered with: CHBE452. Credit only granted for: CHBE452 or CHBE652.

Introduction of data science and machine learning approaches to modern problems in chemical engineering and materials science. This course develops data science approaches, including their foundational mathematical and statistical basis, and applies these methods to data sets of limited size and precision. Methods for regression and clustering will be developed and applied, with an emphasis on validation and error quantification. Techniques that will be developed include linear and nonlinear regression, clustering and logistic regression, dimensionality reduction, unsupervised learning, and artificial neural networks. These methods will be applied to a range of engineering problems, including conducting polymers, stretchable conductors, organic synthesis, and quality control in manufacturing.

0101	Po-Yen Chen, Tianle Chen	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	AJC 2119

CHBE672 **Control of Air Pollution Sources**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE472. Credit only granted for: CHBE472 or CHBE672.

Sources and effects of air pollutants, regulatory trends, atmospheric dispersion models, fundamentals of two-phase flow as applied to air pollution and air pollution control systems, design of systems for control of gases and particulate matter.

0101	Akua Asa-Awuku	Seats (Total: 8)
	TuTh 11:00am - 12:15pm	ESJ 1309

CHBE674 **Biopharmaceutical Process Development and Manufacturing**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Chemical & Biomolecular Engineering department. Jointly offered with: CHBE474. Credit only granted for: CHBE474, BIOE489T, ENCH648D or CHBE674. Formerly: ENCH648D.

Covers the fundamental steps involved in process development and manufacturing of biopharmaceuticals. An overview of different classes of biopharmaceuticals as well as manufacturing requirements for clinical development and regulatory approval will be provided. In depth coverage of manufacturing steps including cell culture, purification and formulation as well as drug product manufacturing, analysis and stability will be covered. Scientific literature will be used to highlight current challenges and novel solutions in each step of the manufacturing process. Scale up considerations, GMP requirements and process economics will also be introduced.

0101	Deborah Goldberg	Seats (Total: 5)
	MW 1:00pm - 2:15pm	ATL 1114

CHBE686 **Advanced Heterogeneous Catalysis for Energy Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in CHBE302, CHBE424, and CHBE440; and permission of instructor. Restriction: Permission of instructor. Jointly offered with: CHBE486. Credit only granted for: CHBE486, ENCH686 or CHBE686. Formerly: ENCH686.

Introduction to heterogeneous catalytic science and technology for energy conversion and hydocarbon processing. Preparation and mechanistic characterization of catalyst systems, kinetics of catalyzed reactions, adsorption and diffusion influences in heterogenious reactions. An overview of heterogeneous catalysis in various energy-related applications, including petroleum refining, chemicals from biomass, valorization of shale gas, and CO2 utilization will be introduced.

0101	Dongxia Liu	Seats (Total: 11)
	MWF 9:00am - 9:50am	EGR 0108

CHBE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHBE898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CHBE899 **Doctoral Dissertation Research; Chemical Engineering**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHEM Chemistry Fall 2022

The College of Computer, Mathematical and Natural Sciences enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course. Registration in course sections which begin with "SEF" are restricted to students admitted into the Science in the Evening Program, administer ed through the Office of Extended Studies. For complete information, visit: OES website, email:oes@umd.edu, or call 301-405-7762.*

CHEM131 **Chemistry I - Fundamentals of General Chemistry**

Credits: 3 Grading Method: Regular General Education: DSNL (if taken with CHEM132), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

Students without the math pre-requisite will be administratively dropped.

1221	Alice Mignerey MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1222	Alice Mignerey MWF 10:00am - 10:50am Tu 9:30am - 10:20am	Seats (Total: 36) CHM 1407 PHY 2214	Discussion
1224	Alice Mignerey MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1241	Alice Mignerey MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1242	Alice Mignerey MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 18) CHM 1407 PHY 2214	Discussion
1243	Alice Mignerey MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 35) CHM 1407 PHY 2214	Discussion
1325	Christiana Guest MWF 9:00am - 9:50am Tu 12:30pm - 1:20pm	Seats (Total: 35) PHY 1412 PHY 2214	Discussion
1327	Christiana Guest MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 18) PHY 1412 PHY 2214	Discussion
1328	Christiana Guest MWF 9:00am - 9:50am Tu 3:30pm - 4:20pm	Seats (Total: 35) PHY 1412 PHY 2214	Discussion

1345	Christiana Guest MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 35) PHY 1412 PHY 2214	Discussion
1347	Christiana Guest MWF 9:00am - 9:50am Th 2:00pm - 2:50pm	Seats (Total: 35) PHY 1412 PHY 2214	Discussion
1348	Christiana Guest MWF 9:00am - 9:50am Th 3:30pm - 4:20pm	Seats (Total: 35) PHY 1412 PHY 2214	Discussion
1425	Ashley Baxter MWF 8:00am - 8:50am Tu 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1426	Ashley Baxter MWF 8:00am - 8:50am Tu 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1427	Ashley Baxter MWF 8:00am - 8:50am Tu 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1445	Ashley Baxter MWF 8:00am - 8:50am Th 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1446	Ashley Baxter MWF 8:00am - 8:50am Th 2:00pm - 2:50pm	Seats (Total: 18) CHM 1407 PHY 2122	Discussion
1447	Ashley Baxter MWF 8:00am - 8:50am Th 3:30pm - 4:20pm	Seats (Total: 35) CHM 1407 PHY 2122	Discussion
1521	Ashley Baxter MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 35) CHM 1407 PHY 2106	Discussion

1522	Ashley Baxter MWF 1:00pm - 1:50pm Tu 9:30am - 10:20am	Seats (Total: 35) CHM 1407 PHY 2106	Discussion
1523	Ashley Baxter MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 18) CHM 1407 PHY 2106	Discussion
1541	Ashley Baxter MWF 1:00pm - 1:50pm Th 8:00am - 8:50am	Seats (Total: 35) CHM 1407 PHY 2106	Discussion
1542	Ashley Baxter MWF 1:00pm - 1:50pm Th 9:30am - 10:20am	Seats (Total: 35) CHM 1407 PHY 2106	Discussion
1543	Ashley Baxter MWF 1:00pm - 1:50pm Th 12:30pm - 1:20pm	Seats (Total: 35) CHM 1407 PHY 2106	Discussion
FC01	Heather Tienson-Tseng TuTh 4:30pm - 5:45pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 40) CHM 1407 PHY 2214	Discussion
FC02	Heather Tienson-Tseng TuTh 4:30pm - 5:45pm F 12:00pm - 12:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) CHM 1407 PHY 2214	Discussion
FC03	Heather Tienson-Tseng TuTh 4:30pm - 5:45pm F 3:00pm - 3:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) CHM 1407 PHY 2214	Discussion
SEF1	Amanda Schech M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 38) PHY 2106 PHY 2106	Discussion

CHEM131S Chemistry I - Fundamentals of General Chemistry

Credits: 3 Grading Method: Regular General Education: DSNL (if taken with CHEM132), DSNS

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM132. Recommended: For Science majors. Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM153 or CHEM146. Formerly: CHEM103.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

Restricted to College Park Scholars - Life Sciences. Students without the math pre-requisite will be administratively dropped.

1242	Alice Mignerey MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 20) CHM 1407 PHY 2214	Discussion
1327	Christiana Guest MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 20) PHY 1412 PHY 2214	Discussion
1446	Ashley Baxter MWF 8:00am - 8:50am Th 2:00pm - 2:50pm	Seats (Total: 20) CHM 1407 PHY 2122	Discussion
1523	Ashley Baxter MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 20) CHM 1407 PHY 2106	Discussion

CHEM132 General Chemistry I Laboratory

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Prerequisite: Must have math eligibility of MATH120 or higher. Laboratory sessions will begin after the first lecture. Students must pay a $40.00 laboratory materials fee.

1111	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1312	Lab
1112	Christiana Guest M 9:00am - 11:50am	Seats (Total: 24) ESJ 1316	Lab
1122	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	Lab
1123	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 2324	Lab
1131	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1211	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1221	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1222	Christiana Guest Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1232	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1233	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 2324	Lab
1321	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1331	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1332	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1333	Christiana Guest W 3:00pm - 5:50pm	Seats (Total: 24) ESJ 2324	Lab

1411	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1312	Lab
1412	Christiana Guest Th 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	Lab
1422	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1316	Lab
1432	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1316	Lab
1531	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1312	Lab
1532	Christiana Guest F 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
FC11	Christiana Guest F 9:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1316	Lab
FC12	Christiana Guest F 9:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 2324	Lab
FC21	Christiana Guest F 12:00pm - 2:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1316	Lab
FC22	Christiana Guest F 12:00pm - 2:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 2324	Lab
FC33	Christiana Guest F 3:00pm - 5:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ESJ 1330	Lab

SEF1	Christiana Guest W 7:30pm - 10:30pm	Seats (Total: 24) ESJ 1330	Lab
	Must be in the Science in the Evening (SIE) program.		

CHEM132C **General Chemistry I Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1121	Christiana Guest M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	Lab
1132	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 1316	Lab
1133	Christiana Guest M 3:00pm - 5:50pm	Seats (Total: 24) ESJ 2324	Lab
1213	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 2324	Lab
1231	Christiana Guest Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	Lab
1323	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 2324	Lab
1421	Christiana Guest Th 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1312	Lab
1433	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 2324	Lab
	This section is restricted to BioFire students.		

1521	Christiana Guest F 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1312	 Lab
	This section is restricted to BioFire students.		

CHEM132S **General Chemistry I Laboratory**

Credits: 1 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM131. Credit only granted for: CHEM103, CHEM132, CHEM136, CHEM143, CHEM147 or CHEM177. Formerly: CHEM103.

Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

Restricted to College Park - Life Sciences. Prerequisite: Must have math eligibility of MATH120 or higher. Laboratory sessions will begin after the first lecture. Students must pay a $40.00 laboratory materials fee.

1212	Christiana Guest Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1316	 Lab
1322	Christiana Guest W 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1316	 Lab
1431	Christiana Guest Th 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1312	 Lab

CHEM134 **Chemical Principles for Engineering**

Credits: 1 Grading Method: Regular

Prerequisite: Minimum grade of C- in CHEM131; or minimum grade of C- in CHEM146. Credit only granted for: CHEM 134 or CHEM 135.

Basic chemistry for engineering students. Introduction to organic structures and polymers, gas laws, liquids, solids, phase changes, chemical kinetics and electrochemistry.

0101	Natalia White Tu 8:00am - 8:50am	Seats (Total: 160) ESJ 2208

CHEM135 **General Chemistry for Engineers**

Credits: 3 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH120 or higher. Credit only granted for: CHEM103, CHEM113, CHEM131, CHEM135, or CHEM146.

The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

3125	Elizabeth Griffith TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3126	Elizabeth Griffith TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3127	Elizabeth Griffith TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3145	Elizabeth Griffith TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3147	Elizabeth Griffith TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3148	Elizabeth Griffith TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 40) CHM 1407 PHY 2122	Discussion
3225	James Rainbolt MWF 2:00pm - 2:50pm Tu 8:00am - 8:50am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion
3226	James Rainbolt MWF 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion
3227	James Rainbolt MWF 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion
3245	James Rainbolt MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion

3247	James Rainbolt MWF 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion
3248	James Rainbolt MWF 2:00pm - 2:50pm Th 11:00am - 11:50am	Seats (Total: 40) BRB 1101 PHY 2122	Discussion
3425	Amanda Schech TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
3426	Amanda Schech TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
3427	Amanda Schech TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
3445	Amanda Schech TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
3446	Amanda Schech TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
3447	Amanda Schech TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 40) BRB 1101 PHY 2214	Discussion
FC01	James Rainbolt TuTh 4:30pm - 5:45pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 44) CHM 1402 PHY 2122	Discussion
FC02	James Rainbolt TuTh 4:30pm - 5:45pm F 12:00pm - 12:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 44) CHM 1402 PHY 2122	Discussion

FC03	James Rainbolt TuTh 4:30pm - 5:45pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 44) CHM 1402 PHY 2122	Discussion

CHEM136 **General Chemistry Laboratory for Engineers**

Credits: 1 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in CHEM135 and must have math eligibility of MATH120 or higher. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1125	Natalia White M 12:00pm - 2:50pm	Seats (Total: 24) ESJ 1330	Lab
1135	Natalia White Tu 3:30pm - 6:20pm	Seats (Total: 24) ESJ 1330	Lab
1215	Natalia White Tu 9:30am - 12:20pm	Seats (Total: 24) ESJ 1330	Lab
1225	Natalia White Tu 12:30pm - 3:20pm	Seats (Total: 24) ESJ 1330	Lab

CHEM146 **Principles of General Chemistry**

Credits: 3 Grading Method: Regular

Prerequisite: Must have math eligibility of MATH140 or higher. Corequisite: CHEM177. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM103, CHEM131, CHEM135, CHEM143, or CHEM146. Formerly: CHEM143.

An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM146 is the first course in a four-semester sequence for Chemistry and Biochemistry majors.

0032	Efrain Rodriguez MWF 9:00am - 9:50am Tu 9:30am - 10:20am	Seats (Total: 30) PLS 1140 CHM 1228	Discussion

0033	Efrain Rodriguez MWF 9:00am - 9:50am Th 9:30am - 10:20am	Seats (Total: 30) PLS 1140 CHM 1228	 Discussion

CHEM177 **Introduction to Laboratory Practices and Research in the Chemical Sciences**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have math eligibility of MATH120 or higher. Corequisite: CHEM146, CHEM131, or CHEM135. Restriction: Must be in a major within CMNS-Chemistry & Biochemistry department; or permission of CMNS-Chemistry & Biochemistry department. Credit only granted for: CHEM132, CHEM136, CHEM147, or CHEM177.

First semester laboratory course required for CHEM and BCHM majors. Introduction to laboratory techniques, including safety practices, scientific ethics, and presentation of current research topics.

Prerequisite: Must have math eligibility of MATH120 or higher. Students must pay a $40.00 laboratory materials fee.

1131	Elizabeth Griffith F 3:00pm - 3:50pm M 3:00pm - 5:50pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1211	Elizabeth Griffith F 3:00pm - 3:50pm Tu 9:30am - 12:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1231	Elizabeth Griffith F 3:00pm - 3:50pm Tu 3:30pm - 6:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1331	Elizabeth Griffith F 3:00pm - 3:50pm W 3:00pm - 5:50pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1411	Elizabeth Griffith F 3:00pm - 3:50pm Th 9:30am - 12:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab
1431	Elizabeth Griffith F 3:00pm - 3:50pm Th 3:30pm - 6:20pm	Seats (Total: 18) ESJ 1202 ESJ 0312	 Lab

CHEM231 **Organic Chemistry I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM135, or CHEM146; and (CHEM132, CHEM136, CHEM147, or CHEM177); and a grade of C- or better in the prerequisites is required of College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM232. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

5125	Lee Friedman MWF 9:00am - 9:50am Tu 12:30pm - 1:20pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5127	Lee Friedman MWF 9:00am - 9:50am Tu 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5128	Lee Friedman MWF 9:00am - 9:50am Tu 3:30pm - 4:20pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5145	Lee Friedman MWF 9:00am - 9:50am Th 12:30pm - 1:20pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5147	Lee Friedman MWF 9:00am - 9:50am Th 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5148	Lee Friedman MWF 9:00am - 9:50am Th 3:30pm - 4:20pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5215	Lenea Stocker MWF 12:00pm - 12:50pm Tu 12:30pm - 1:20pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion
5216	Lenea Stocker MWF 12:00pm - 12:50pm Tu 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion

5217	Lenea Stocker MWF 12:00pm - 12:50pm Tu 3:30pm - 4:20pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion
5235	Lenea Stocker MWF 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion
5236	Lenea Stocker MWF 12:00pm - 12:50pm Th 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion
5237	Lenea Stocker MWF 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 31) CHM 1407 CHM 1228	Discussion
5315	Lenea Stocker TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5316	Lenea Stocker TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5317	Lenea Stocker TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5335	Lenea Stocker TuTh 2:00pm - 3:15pm W 12:00pm - 12:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5336	Lenea Stocker TuTh 2:00pm - 3:15pm W 1:00pm - 1:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion
5337	Lenea Stocker TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 31) CHM 1407 PHY 2208	Discussion

5421	Monique Koppel MWF 2:00pm - 2:50pm Tu 8:00am - 8:50am	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
5422	Monique Koppel MWF 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
5423	Monique Koppel MWF 2:00pm - 2:50pm Tu 11:00am - 11:50am	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
5441	Monique Koppel MWF 2:00pm - 2:50pm Th 8:00am - 8:50am	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
5442	Monique Koppel MWF 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
5443	Monique Koppel MWF 2:00pm - 2:50pm Th 12:30pm - 1:20pm	Seats (Total: 31) CHM 1407 PHY 2213	Discussion
SEF1	Monique Koppel M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 36) PHY 2208 PHY 2208	Discussion

CHEM232 **Organic Chemistry Laboratory I**

Credits: 1 Grading Method: Regular

Prerequisite: CHEM131 and CHEM132; or (CHEM135 and CHEM136); or (CHEM146 and CHEM147). And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM231. Credit only granted for: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly: CHEM233.

Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

Laboratory sessions will begin after the first lecture of CHEM 231. Students must pay a $40.00 laboratory materials fee.

5121	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5122	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5123	Monique Koppel M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1360	Lab
5131	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5132	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5133	Monique Koppel M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	Lab
5141	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab
5142	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1356	Lab
5143	Monique Koppel M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5221	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5222	Monique Koppel Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5231	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5232	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab
5233	Monique Koppel Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab

5241	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5242	Monique Koppel Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5321	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5322	Monique Koppel W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5331	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5332	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
5333	Monique Koppel W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1360	Lab
5341	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1346	Lab
5343	Monique Koppel W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1360	Lab
5421	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1346	Lab
5422	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1356	Lab
5423	Monique Koppel Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1360	Lab
5431	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1346	Lab
5432	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1356	Lab

5433	Monique Koppel Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1360	Lab
5441	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1346	Lab
5442	Monique Koppel Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1356	Lab
5521	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1346	Lab
5522	Monique Koppel F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1356	Lab
5531	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1346	Lab
5532	Monique Koppel F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1356	Lab
SEF1	Monique Koppel W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 18) CHM 1356	Lab

CHEM241 **Organic Chemistry II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Credit only granted for: CHEM241, CHEM243 or CHEM247. Formerly: CHEM243.

A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

6115	Jeffery Davis TuTh 8:00am - 9:15am M 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 CHM 1228	Discussion
6116	Jeffery Davis TuTh 8:00am - 9:15am M 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 CHM 1228	Discussion

6117	Jeffery Davis TuTh 8:00am - 9:15am M 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6135	Jeffery Davis TuTh 8:00am - 9:15am W 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6136	Jeffery Davis TuTh 8:00am - 9:15am W 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6137	Jeffery Davis TuTh 8:00am - 9:15am W 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6212	Jeffery Davis TuTh 9:30am - 10:45am M 9:00am - 9:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6213	Jeffery Davis TuTh 9:30am - 10:45am M 10:00am - 10:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6214	Jeffery Davis TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6232	Jeffery Davis TuTh 9:30am - 10:45am W 9:00am - 9:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6233	Jeffery Davis TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion
6234	Jeffery Davis TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 35) CHM 1407 CHM 1228	 Discussion

6415	Michael Montague-Smith TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
6416	Michael Montague-Smith TuTh 12:30pm - 1:45pm M 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
6417	Michael Montague-Smith TuTh 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
6435	Michael Montague-Smith TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
6436	Michael Montague-Smith TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
6437	Michael Montague-Smith TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 35) CHM 1407 PHY 2213	Discussion
SEF1	Howard Fribush M 6:30pm - 9:30pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) PLS 1140 CHM 1228	Discussion

CHEM242 **Organic Chemistry Laboratory II**

Credits: 1 Grading Method: Regular

Prerequisite: CHEM231 and CHEM232; or CHEM237. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM241. Credit only granted for: CHEM243 or CHEM247. Formerly: CHEM243.

Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

Students must pay a $40.00 laboratory materials fee.

6121	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6122	Lee Friedman M 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab
6131	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6132	Lee Friedman M 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	Lab
6141	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6142	Lee Friedman M 6:00pm - 8:50pm	Seats (Total: 18) CHM 1330	Lab
6221	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6222	Lee Friedman Tu 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6231	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6232	Lee Friedman Tu 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6241	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab
6242	Lee Friedman Tu 6:30pm - 9:20pm	Seats (Total: 18) CHM 1330	Lab
6321	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab
6322	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	Lab

6323	Lee Friedman W 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	Lab
6331	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	Lab
6332	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 14) CHM 1330	Lab
6333	Lee Friedman W 3:00pm - 5:50pm	Seats (Total: 18) CHM 1342	Lab
6341	Lee Friedman W 6:00pm - 8:50pm	Seats (Total: 18) CHM 1326	Lab
6421	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1326	Lab
6422	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1330	Lab
6423	Lee Friedman Th 12:30pm - 3:20pm	Seats (Total: 18) CHM 1342	Lab
6431	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1326	Lab
6432	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1330	Lab
6433	Lee Friedman Th 3:30pm - 6:20pm	Seats (Total: 18) CHM 1342	Lab
6441	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1326	Lab
6442	Lee Friedman Th 6:30pm - 9:20pm	Seats (Total: 18) CHM 1330	Lab
6521	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1326	Lab

6522	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1330	 Lab
6523	Lee Friedman F 12:00pm - 2:50pm	Seats (Total: 18) CHM 1342	 Lab
6531	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1326	 Lab
6532	Lee Friedman F 3:00pm - 5:50pm	Seats (Total: 18) CHM 1330	 Lab
SEF1	Lee Friedman W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 18) CHM 1330	 Lab

CHEM247 **Principles of Organic Chemistry II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM237; or permission of CMNS-Chemistry & Biochemistry department. Restriction: Must be in one of the following programs (Chemistry; Biochemistry) ; or must be an honors student. Credit only granted for: CHEM243 or CHEM247.

A continuation of CHEM237 with emphasis on molecular structure, substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

Students must pay a $40.00 laboratory materials fee.

6113	Lyle Isaacs MWF 10:00am - 10:50am M 3:00pm - 5:50pm Tu 8:00am - 8:50am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion
6123	Lyle Isaacs MWF 10:00am - 10:50am M 6:00pm - 8:50pm Tu 8:00am - 8:50am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion
6224	Lyle Isaacs MWF 10:00am - 10:50am Tu 3:30pm - 6:20pm Tu 9:30am - 10:20am	Seats (Total: 18) PLS 1130 CHM 1342 PHY 2208	 Lab Discussion

CHEM271 **General Chemistry and Energetics**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM272. Credit only granted for: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly: CHEM113.

An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

2222	Andrei Vedernikov MW 11:00am - 11:50am Tu 8:00am - 8:50am	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2225	Andrei Vedernikov MW 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2227	Andrei Vedernikov MW 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2242	Andrei Vedernikov MW 11:00am - 11:50am Th 8:00am - 8:50am	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2245	Andrei Vedernikov MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2247	Andrei Vedernikov MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 23) CHM 1407 PHY 2211	Discussion
2326	Leah Dodson MW 3:00pm - 3:50pm Tu 12:30pm - 1:20pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion
2327	Leah Dodson MW 3:00pm - 3:50pm Tu 2:00pm - 2:50pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion

2328	Leah Dodson MW 3:00pm - 3:50pm Tu 3:30pm - 4:20pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion
2346	Leah Dodson MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion
2347	Leah Dodson MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion
2348	Leah Dodson MW 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 23) CHM 1407 PHY 2124	Discussion
SEF1	Natalia White M 6:00pm - 7:50pm W 6:30pm - 7:20pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 20) CHM 1228 ESJ B0322	Discussion

CHEM272 **General Bioanalytical Chemistry Laboratory**

Credits: 2 Grading Method: Regular, Pass-Fail

Prerequisite: CHEM241 and CHEM242; or CHEM247. And a grade of C- or better in the prerequisites is required for College of Computer, Mathematical, and Natural Sciences majors and recommended for all students. Corequisite: CHEM271. Credit only granted for: CHEM227, CHEM272 or CHEM277.

An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

Students must pay a $40.00 laboratory materials fee.

8122	Amanda Schech F 11:00am - 11:50am M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	Lab
8211	Amanda Schech F 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	Lab

8231	Amanda Schech F 11:00am - 11:50am Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8321	Amanda Schech F 11:00am - 11:50am W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8331	Amanda Schech F 11:00am - 11:50am W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8421	Amanda Schech F 11:00am - 11:50am Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
8431	Amanda Schech F 11:00am - 11:50am Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9121	Amanda Schech F 3:00pm - 3:50pm M 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9131	Amanda Schech F 3:00pm - 3:50pm M 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9221	Amanda Schech F 3:00pm - 3:50pm Tu 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9232	Amanda Schech F 3:00pm - 3:50pm Tu 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9322	Amanda Schech F 3:00pm - 3:50pm W 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab

9332	Amanda Schech F 3:00pm - 3:50pm W 3:00pm - 5:50pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9411	Amanda Schech F 3:00pm - 3:50pm Th 9:30am - 12:20pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
9422	Amanda Schech F 3:00pm - 3:50pm Th 12:30pm - 3:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9432	Amanda Schech F 3:00pm - 3:50pm Th 3:30pm - 6:20pm	Seats (Total: 24) CHM 1407 ESJ 2316	 Lab
9521	Amanda Schech F 3:00pm - 3:50pm F 12:00pm - 2:50pm	Seats (Total: 24) CHM 1407 ESJ 2312	 Lab
SEF1	Amanda Schech M 8:00pm - 8:50pm W 7:30pm - 10:30pm *Must be in the Science in the Evening (SIE) program.*	Seats (Total: 24) ONLINE ESJ 2312	 Lab

CHEM277 **Fundamentals of Analytical and Bioanalytical Chemistry Laboratory**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CHEM241 and CHEM242; or minimum grade of C- in CHEM247. Corequisite: CHEM276. Restriction: Must be in one of the following programs (Chemistry; Biochemistry). Credit only granted for: CHEM153, CHEM227, CHEM272 or CHEM277.

Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

Students must pay a $40.00 lab materials fee.

8111	Neil Blough F 11:00am - 11:50am MW 12:00pm - 2:50pm	Seats (Total: 18) CHM 1228 ESJ 0312	 Lab

8121	Neil Blough F 11:00am - 11:50am TuTh 12:30pm - 3:20pm	Seats (Total: 18) CHM 1228 ESJ 0312	 Lab

CHEM398 **Special Projects**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Honors projects for undergraduate students.

Limited to chemistry honors students. Consult with Dr. Montague-Smith.

Contact department for information to register for this course.

CHEM399A **Introduction to Chemical Research**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399B **Introduction to Chemical Research**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399C **Introduction to Chemical Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

Contact department for information to register for this course.

CHEM399X **Introduction to Chemical Research; Chemistry Instruction**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Basic (chemical) research conducted under the supervision of a faculty member.

0101	Michael Montague-Smith Contact instructor or department for details.	Seats (Total: 8)
0102	Lee Friedman Contact instructor or department for details.	Seats (Total: 30)

CHEM403 **Radiochemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one year of college chemistry and one year of college physics.

Radioactive decay; introduction to properties of atomic nuclei; nuclear processes in cosmology; chemical, biomedical and environmental applications of radioactivity; nuclear processes as chemical tools; interaction of radiation with matter.

0101	Alice Mignerey MWF 12:00pm - 12:50pm	Seats (Total: 40) CHM 1224	

CHEM425 **Instrumental Methods of Analysis**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM272 and CHEM271; or (CHEM276 and CHEM277).

Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

Students must pay a $40.00 laboratory materials fee.

0101	Peter Nemes MW 10:00am - 10:50am MW 12:00pm - 2:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0102	Peter Nemes MW 10:00am - 10:50am TuTh 12:30pm - 3:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0104	Peter Nemes MW 10:00am - 10:50am TuTh 9:30am - 12:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0105	Peter Nemes MW 10:00am - 10:50am MW 6:00pm - 8:50pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab
0109	Peter Nemes MW 10:00am - 10:50am TuTh 6:30pm - 9:20pm	Seats (Total: 12) CHM 1402 CHM 3228	 Lab

CHEM441 **Advanced Organic Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in CHEM481; and 1 course with a minimum grade of C- from (CHEM241, CHEM247). Jointly offered with CHEM641.

An advanced study of the compounds of carbon, with special emphasis on molecular orbital theory and organic reaction mechanisms.

0101	Myles Poulin	Seats (Total: 25)
	MW 4:00pm - 5:15pm	PHY 2124

CHEM460 Structure Determination Using Spectroscopic Methods

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed CHEM243; or CHEM247; or (CHEM241 and CHEM242). Formerly: CHEM660.

The use of infrared, ultraviolet-visible, proton and carbon-13 nuclear magnetic resonance and mass spectroscopy for structure determination in organic chemistry.

0101	Daniel Falvey	Seats (Total: 40)
	MWF 10:00am - 10:50am	PHY 2106

CHEM481 Physical Chemistry I

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM135; or minimum grade of C- in CHEM271 and CHEM272; or minimum grade of C- in CHEM276 and CHEM277. And minimum grade of C- in MATH141. And minimum grade of C- in PHYS260 and PHYS261; or minimum grade of C- in PHYS141.

Thermodynamics and kinetics of chemical and molecular systems. Topics may include internal energy, heat, work, enthalpy, entropy, free energy, and spontaneity as well as reaction order, differential rate laws, integrated rate laws, and rate laws for multi-step processes.

0101	Christopher Jarzynski	Seats (Total: 116)
	MWF 9:00am - 9:50am	CHM 1402

CHEM482 Physical Chemistry II

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in CHEM481. Credit only granted for: CHEM482 or BCHM485.

Quantum mechanical nature of atoms and molecules. Topics may include model systems for electronic, vibrational, rotational and translational energies as well as connections to molecular spectroscopy and thermal distributions.

0101	Amanda Souna	Seats (Total: 42)
	MWF 9:00am - 9:50am	PHY 2106

CHEM483 Physical Chemistry Laboratory I

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in CHEM481.

An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

Students must pay a $40.00 lab materials fee. In-person lab times to be arranged with instructor.

0114	Amanda Souna Th 11:00am - 11:50am Tu 9:30am - 12:20pm	Seats (Total: 18) PHY 4221 CHM 3225	Lab
0124	Amanda Souna Th 11:00am - 11:50am Tu 2:00pm - 4:50pm	Seats (Total: 18) PHY 4221 CHM 3225	Lab
0144	Amanda Souna Th 11:00am - 11:50am W 2:00pm - 4:50pm	Seats (Total: 18) PHY 4221 CHM 3225	Lab

CHEM484 Physical Chemistry Laboratory II

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM481 and CHEM483; and must have completed or be concurrently enrolled in CHEM482.

A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

Students must pay a $40.00 laboratory materials fee. In-person lab times to be arranged with instructor.

0124	Kyle Webb Th 3:30pm - 4:20pm W 3:00pm - 5:50pm	Seats (Total: 12) CHM 1224 CHM 3221	Lab

CHEM601 Structure and Bonding of Molecules and Materials

Credits: 3

Grading Method: Regular, Audit

Development of the tools necessary to use the knowledge of structure and bonding of molecules and solids in the practice of synthetic inorganic and materials chemistry. Several bonding models are covered, from the simple valence bond and ligand field models to a quantitative group theoretical treatment of molecular orbital theory and band structure descriptions of solids. Concepts of electron counting and oxidation state and ligand characteristics are revisited in terms of the more sophisticated bonding models. Finally, these models are used to analyze the reactivity, magnetic and spectroscopic properties of inorganic coordination compounds. Prior advanced inorganic and/or advanced quantum chemistry courses are not prerequisites.

0101	Mercedes Taylor	Seats (Total: 21)
	MWF 9:00am - 9:50am	PHY 2124

CHEM608K **Selected Topics in Inorganic Chemistry; Chemistry Teaching and Learning in Higher Education**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Topics of special interest and current importance.

Cross-listed with BIOL608K, CBMG699K, and ENTM699K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)
	W 11:00am - 12:40pm	BPS 1208

CHEM608P **Selected Topics in Inorganic Chemistry; Polymer Chemistry**

Credits: 3 Grading Method: Regular, Audit

Topics of special interest and current importance.

0101	Lawrence Sita	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	PLS 1180

CHEM611 **Professional Skills for New Graduate Students**

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Chemistry (Master's); Biochemistry (Master's); Biochemistry (Doctoral); Chemistry (Doctoral)) ; and must be a new graduate student.

Covers a wide range of topics in professional development for new graduate students.

0101	Neil Blough	Seats (Total: 40)
	F 2:00pm - 3:15pm	CHM 1402

CHEM624 **Electrical Methods of Quantitative Analysis**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

The use of conductivity, potentiometry, polarography, voltammetry, amperometry, coulometry, and chronopotentiometry in quantitative analysis.

0101	Sangbok Lee	Seats (Total: 25)
	TuTh 8:00am - 9:15am	PHY 2124

CHEM641 Organic Reaction Mechanisms

Credits: 3

Grading Method: Regular, Audit

Jointly offered with CHEM441.

0101	Myles Poulin	Seats (Total: 25)
	MW 4:00pm - 5:15pm	PHY 2124

CHEM648P Special Topics in Organic Chemistry; Chemical Biology

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Topics of special interest and current importance.

0101	Lai-Xi Wang	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PLS 1115

CHEM682 Chemical Kinetics and Dynamics

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM482; or permission of instructor. Restriction: Restricted to graduate students or advanced undergraduates with prerequisites.

The dynamics of atoms and molecules as they undergo chemical and physical change. Topics will be developed from a fundamental perspective and modern applications will be discussed. Topics include: chemical kinetics rate equations, atomic and molecular collisions; rate theories; atomic, molecular and chemical lasers; control of matter with light.

0101	Amy Mullin	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	CHM 1224

CHEM684 Chemical Thermodynamics

Credits: 3

Grading Method: Regular, Audit

Prerequisite: CHEM482; or students who have taken courses with comparable content may contact the department.

0101	Pratyush Tiwary TuTh 11:00am - 12:15pm	Seats (Total: 27) PHY 2124

CHEM690 Quantum Chemistry I

Credits: 3 Grading Method: Regular, Audit

0101	YuHuang Wang TuTh 9:30am - 10:45am	Seats (Total: 25) CHM 1224

CHEM699 Special Problems in Chemistry

Credits: 1-6 Grading Method: Regular, Audit

Laboratory experience in a research environment.

Open only to non-thesis Master's degree candidates.

Contact department for information to register for this course.

CHEM799 Master's Thesis Research

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHEM889A Seminar

Credits: 1 Grading Method: Regular, Audit

0101	Alice Mignerey W 11:00am - 11:50am	Seats (Total: 15) PHY 2124

CHEM889C Seminar

Credits: 1 Grading Method: Regular, Audit

0101	Lyle Isaacs Th 11:00am - 12:15pm	Seats (Total: 30) CHE 2110

CHEM889D Seminar; Organic

Credits: 1 Grading Method: Regular, Audit

0101	Lyle Isaacs Th 11:00am - 12:15pm	Seats (Total: 30) CHE 2110

CHEM889E **Seminar; Physical Chemistry**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHEM898F and CHPH709A. Credit will be granted for one ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHEM889F **Seminar; Chemical Physics**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHEM898E and CHPH709A. Credit will be granted for one ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHEM889M **Seminar; Materials Chemistry**

Credits: 1 Grading Method: Regular, Audit

Contact department for information to register for this course.

CHEM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CHEM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHIN Chinese Fall 2022

CHIN101 **Intensive Elementary Chinese I**

(Perm req)

Credits: 6 Grading Method: Regular

Prerequisite: Must have attained appropriate Foreign Language Placement Test (FLPT) score.

Introduction to speaking, reading, and writing Chinese with an emphasis on mastering the essentials of pronunciation, basic characters and structural patterns.

0101	Mei Kong, Jungjung Lee-Heitz	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 1124
	TuTh 9:30am - 10:45am	JMZ 1124

0201	Mei Kong, Jungjung Lee-Heitz MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 1124 JMZ 1124
0301	Guiling Hu MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 15) JMZ 2125 ONLINE

CHIN169A **Special Topics in Study Abroad I; Elementary Chinese I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN169B **Special Topics in Study Abroad I; Elementary Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN201 **Intermediate Spoken Chinese I**

(Perm req)

Credits: 3 Grading Method: Regular CORE: HO

Prerequisite: CHIN102; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN202. Additional information: Must be taken in conjunction with CHIN202.

Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

0101	Yuli Wang MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 2120
0201	Guiling Hu MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 3122

CHIN202 **Intermediate Written Chinese I**

(Perm req)

Credits: 3 Grading Method: Regular CORE: HO General Education: DVCC

Prerequisite: CHIN103; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN201. Additional information: Must be taken in conjunction with CHIN201.

Reading and writing skills with emphasis on grammar and Chinese characters.

0101	Jungjung Lee-Heitz TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 1226

0201	Guiling Hu	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

CHIN203 **Intermediate Spoken Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: CHIN201; or students who have taken courses with comparable content may contact the department; or must have attained appropriate Foreign Language Placement Test (FLPT) score. Corequisite: CHIN204. Additional information: Must be taken in conjunction with CHIN204.

Continuation of CHIN201.

Contact department for information to register for this course.

CHIN269B **Special Topics in Study Abroad II; Chinese Business Issues and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269I **Special Topics in Study Abroad II; Intermediate Spoken Chinese I**

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269P **Special Topics in Study Abroad II; The China Phenomenon**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN269W **Special Topics in Study Abroad II; Chinese Calligraphy II**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN301 **Advanced Chinese I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: CHIN202; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in expository and fictional writing with conversation and composition.

0101	Yuli Wang MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 2120
0201	Yuli Wang MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 1124

CHIN307 **Linguistic Landscape of China**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: Must have completed CHIN204 or above; or permission of Chinese Program Advisor.

Comprehensive introduction to Chinese and other major languages in the Sino-Tibetan, Altaic, Austroasiatic, and Austronesian families, all of which are spoken in China. Taught in English.

0101	Minglang Zhou TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 1224

CHIN313 **Chinese Poetry and Prose in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D

Writing of the major poets, essayists, and historians from the 10th century B.C. to the 12th century A.D. No knowledge of Chinese is required.

Contact department for information to register for this course.

CHIN315 **Modern Chinese Literature in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHU

Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

0101	Yu Min Chen TuTh 2:00pm - 3:15pm	Seats (Total: 30) JMZ 2206

CHIN331 **Chinese Calligraphy: Theory and Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN220; or permission of instructor.

History of the writing system; major scripts, modes, and styles. Intermediate brushwork and lectures on the culture. Characters for practice selected to correspond to lecture topics. Taught in English.

0101	Yuli Wang	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	JMZ 0205

CHIN369B **Special Topics in Study Abroad III; Advanced Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369C **Special Topics in Study Abroad III; Advanced Chinese II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369D **Special Topics in Study Abroad III; Advanced Chinese III**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN369E **Special Topics in Study Abroad III; Advanced Chinese IV**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CHIN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

CHIN401 **Readings in Modern Chinese I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: CHIN302; or students who have taken courses with comparable content may contact the department. And must have taken a placement interview offered by the department for Non-majors.

Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

0101	Mei Kong MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 1120
0201	Mei Kong MWF 3:00pm - 3:50pm	Seats (Total: 15) JMZ 1226

CHIN411 **Business Chinese I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHIN402; or permission of ARHU-School of Languages, Literatures, and Cultures department. And must have taken a placement interview offered by the department for Non-majors.

Conversation, reading, and writing applicable to Chinese business transactions, social meetings, and meetings with government organizations, plus background material in English on professional business practices and social customs associated with business.

0101	Jungjung Lee-Heitz TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 1226

CHIN418K **Special Topics in Contemporary Chinese Fiction and Film; Sinophone Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

0101	Yu Min Chen TuTh 11:00am - 12:15pm	Seats (Total: 20) LEF 1222

CHIN441 **Traditional Chinese Fiction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department.

Major works of fiction from the 4th century tales of the marvelous through the 19th century Qing novel. Readings are in classical Chinese and English. Designed for students with advanced language skills. Taught in English.

0101	Andrew Schonebaum TuTh 12:30pm - 1:45pm	Seats (Total: 18) JMZ 3203

CHIN499 **Directed Study in Chinese**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Readings in Chinese under faculty supervision.

Contact department for information to register for this course.

CHPH Chemical Physics Fall 2022

CHPH618 **Special Projects in Chemical Physics**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Independent reading and study covering chemical physics subject areas not available in other courses.

Contact department for information to register for this course.

CHPH709A **Seminar in Chemical Physics; Physical Chemistry**

Credits: 1

Grading Method: Regular, Audit

Current research and developments in chemical physics.

Jointly offered with CHEM898E and CHEM898F. Credit will be granted for o ne ofthe following: CHEM889E, CHEM889F, or CHPH709A.

0101	Leah Dodson	Seats (Total: 55)
	W 11:00am - 12:15pm	IPT 1116

CHPH709B **Seminar in Chemical Physics; Statistical Physics**

Credits: 1

Grading Method: Regular, Audit

Current research and developments in chemical physics.

Cross-listed with PHYS709.

0101	Pratyush Tiwary	Seats (Total: 30)
	Tu 1:15pm - 2:30pm	IPT 1116

CHPH709L **Seminar in Chemical Physics; Biophysics**

Credits: 1

Grading Method: Regular, Audit

Current research and developments in chemical physics.

0101	Arpita Upadhyaya	Seats (Total: 20)
	M 4:00pm - 5:30pm	IPT 1116

CHPH718I **Special Topics in Chemical Physics; Chemical Physics Rotation**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

A discussion of current research problems in chemical physics.

For Chemical Physics Students only.

0101	Wendell Hill	Seats (Total: 5)
	Class time/details on ELMs	ONLINE
0201	Wendell Hill	Seats (Total: 10)
	Contact instructor or department for details.	

CHPH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHPH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CHPH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CHSE Counseling, Higher Education, and Special Education — Fall 2022

CHSE200 **College Success and Life Planning - Managing College and Career Life through Goal Development and Planning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the TerpsEXCEED Program; and permission from TerpsEXCEED Director.
Additional information: Priority enrollment for students in the TerpsEXCEED program.

The overarching goal of this course is to guide new students affiliated with the TerpsEXCEED program in navigating the initial stages of college, career and campus life management. The course is organized around Academic and Career Habits, Cultural Know-How, Balance of Multiple Roles, and Self-Direction in order to address (a) skills and interest assessments, (b) goal setting, (c) organizational and independent living skills development, (d) travel and transportation orientation to navigate and access campus and College Park, (e) financial planning, (f) safety, (g) social activity access, and (h) basic scheduling and time management. TerpsEXCEED students will be matched with typical student peer supports for a more normalized college experience.

0101	Meredith Gramlich, Amy D'Agati	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	JMZ 1123

CHSE205 **Disability: From Stigma and Sideshow to Mainstream and Main Street**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP, SCIS

Credit only granted for: EDSP289I or CHSE205. Formerly: EDSP289I.

Explores the cultural, historical, educational, and medical roots of difference among human beings and examines the impact of cultural and technological changes on individuals traditionally identified as disabled. The course is designed to develop a broad understanding of the concept of "disability" and the emerging technologies that shape contemporary understanding of this phenomenon and the lives of those considered disabled.

0101	Yewon Lee	Seats (Total: 60)
	TuTh 9:30am - 10:45am	TWS 0310

CHSE328A **Common Ground Deliberative Dialogues; Hot Button Topics in Society**

Credits: 1 Grading Method: Regular

The Common Ground Multicultural Dialogue Program provides structured opportunities for students to engage in peer-led dialogues on compelling hot button topics that have important implications for our society. These topics often elicit strong opinions and have the potential to be divisive. A primary goal of the program is to equip students with the skills, experiences, and confidence to engage with others on difficult topics such as these. Participants drive the content of the dialogue by sharing their perspectives and ideas for addressing the topic, ultimately attempting to find areas of consensus among the group. By the end of the experience, participants should have a greater appreciation of the complexity of the topic and a better understanding of perspectives on the topic that differ from their own, building their capacity for empathy while still potentially disagreeing with certain ideas.

0101	Benjamin Beltran	Seats (Total: 16)
	Meets October 17, 2022 - December 9, 2022	
	Th 6:00pm - 8:00pm	ASY 3217

CHSE338B **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender, or Socioeconomic Status**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

0101	Laura Widener, Victoria Alexander, Emmanuel Massalee, Jazmin Pichardo, Cameron Busacca, Shantala Thompson, Marc Weinschenker, Tiffany Wright, Adam Klager **Meets August 29, 2022 - October 14, 2022** Tu 6:30pm - 8:30pm	Seats (Total: 45) MMH 2411	

CHSE338I **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Religion and Spirituality, Size and Appearance**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Click here for more informtion.

0201	Jazmin Pichardo, Juanita Ariza, Hope Fagundes, Adam Klager, Laura Widener, Emmanuel Massalee **Meets October 17, 2022 - December 9, 2022** W 6:00pm - 8:00pm	Seats (Total: 32) MMH 2411	

CHSE338K **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Equity and Inclusion in Engineering Design**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: Must be in the A. James Clark School of Engineering and permission of department. Develop a better understanding of the history of engineering, the role it has played in promoting exclusion, and how to advance equity through inclusive engineering design practices. This is a dialogue-based course which will allow you to engage in meaningful dialogue with your peers to consider ways in which you can show up to be a more inclusive engineer.

0201	Paige Smith, Suzanne Ashour-Bailey **Meets August 29, 2022 - October 11, 2022** Tu 4:00pm - 5:50pm	Seats (Total: 20) HJP 2217
0202	Ken Kiger, Le-Marie Thompson **Meets August 29, 2022 - October 12, 2022** W 2:00pm - 3:50pm	Seats (Total: 20) HBK 0108

CHSE338L **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Race, Gender, or Citizenship**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Click here for more informtion.

0201	Abigail Williams-Yee, Justine Suegay, Tyrese Fenty, Adam Klager, Imani Burwell, Daniel Stott, Jazmin Pichardo, Judith Martinez, Emmanuel Massalee **Meets October 17, 2022 - December 9, 2022** Tu 6:00pm - 8:00pm	Seats (Total: 44) MMH 2411

CHSE389 **Independent Study**

(Perm req)

Credits: 3 | Grading Method: Regular, Audit

This course builds on the goals and skills students acquired through CHSE200: College Success and Life Planning - Managing College and Career Life through goal development and planning. The course offers independent projects based on individual goals and plans. This will supplement and assist students to complete the requirements for the TerpsEXCEED Certification in their respective field of study. Prerequisite: CHSE200: College Success and Life Planning - Managing College and Career Life through goal development and planning.

Contact department for information to register for this course.

CHSE489 **TerpsEXCEED Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

This field-based course is required for TerpsEXCEED students each semester, building on itself. Beginning semesters focus on career development, interests, job assessments and exploration. Middle semesters allows students to participate in work based learning experiences, internships and on-the-job trials on campus and within College Park and Washington DC. The final semester focuses on acquiring a paid job in a career filed of interest.

Contact department for information to register for this course.

CINE Cinema and Media Studies Fall 2022

CINE245 **Film Form and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: ENGL245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0101	Mauro Resmini MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion
0102	Mauro Resmini MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion
0103	Mauro Resmini MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 TWS 0201	 Discussion

0104	Mauro Resmini MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion

CINE280 **Film Art in a Global Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: CMLT280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	Joshua Weiss MWF 1:00pm - 1:50pm	Seats (Total: 30) TYD 2106
0201	Valentina Rosales TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 0214

CINE283 **Iranian Cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: PERS283. Credit only granted for: PERS283, CINE283 or FILM298B.

Introduction to Iranian cinema, society, and culture. Taught in English.

0101	Marjan Moosavi MW 3:30pm - 4:45pm	Seats (Total: 30) JMZ 2206

CINE298E **Special Topics in International Film Studies; Storytelling in Israeli Animation and Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail

Special topics in International Film.

Cross-listed with TDPS258W, JWST219F, ENGL289F and IRSL249B. Credit only granted for ISRL249B, TDPS258W, JWST219F, ENGL289F, or CINE298E. How short can a story be and still stand as a complete and meaningful creation? In animation, where every second consists of 25 handmade frames, the idea of short is brought to its extreme. Students will explore the structures of short stories and short animation films, with particular attention to Jewish and Israeli examples. Students will observe the basic elements that turn a short occurrence into a story and will practice live storytelling to experiment with different approaches to the narrator's role and the tension between text and image. Special emphasis will be given to the use of narration in animation films.

0101	Yael Inbar	Seats (Total: 15)	
	TuTh 2:00pm - 3:15pm	PAC 1815	

CINE301 **Cinema History I: The Silent Era**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, CINE245, or FILM245; or permission of ARHU-College of Arts & Humanities. Credit only granted for: CINE301 or FILM301. Formerly: FILM301.

Examines the development of silent cinema from the 1890s to the early 1930s drawing on at least five distinct national traditions (French, German, Russian, British, and American). Introduces students to key cinematic conventions as they emerged around the world.

0101	Oliver Gaycken	Seats (Total: 30)	
	MW 10:00am - 11:50am	HBK 0105	

CINE319F **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Cartoons on the Page and on the Screen**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

Prerequisite: ENGL245, FILM245, CINE245, FILM283, or SLLC283; or permission of instructor. Also offered as ENGL329B. Credit only granted for CINE319F or ENGL329B.

0101	Paul Cote	Seats (Total: 30)	
	M 3:30pm - 6:00pm	ESJ B0322	

CINE319M **Special Topics in Documentary, Animation, Experimental Cinema, and Other Visual Media; Introduction to Filmmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine the possibilities of non-narrative cinema, or cinema that is structured differently from the fiction feature film, as well as other media (television, digital imagery, and photography) that entertain a close relationship with cinema in terms of form, content, and audience. Content varies.

This practice-based course offers an introduction to the foundational skills, techniques, and principles of filmmaking. Prior film or video production experience is not necessary.

0101	Justin Foreman	Seats (Total: 15)	
	W 2:00pm - 3:15pm	JMZ 1205	
	W 3:30pm - 6:00pm	JMZ 1205	Lab

CINE329T **Special Topics in National/International Cinemas; Sports in Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

0101	Daniel Richter TuTh 9:30am - 10:45am	Seats (Total: 25) ONLINE

CINE329Z **Special Topics in National/International Cinemas; Cinema and Migration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

0101	Daniel Richter W 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) ESJ B0322 ONLINE

CINE337 **Contemporary Chinese Art and Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: ARTH392, FILM329L. Credit only granted for: ARTH392, FILM329L or CINE337.

Contemporary Chinese art and film are arguably the most vibrant of all national arts at the turn of the millennium and have become the face - both figuratively and literally - of contemporary China, a complex society with historic overlays of Confucianism, Taoism, Buddhism, Communism, Post-socialism, and state capitalism. Students will consider a wide range of art forms (painting, photography, video, installation, web-based media, and film) in four broad themes (uses of the past; critiques of power; representations of race, gender, and sexuality; socially engaged art) and explore the complex intertwining of the political, historical, and aesthetic aspects in Chinese contemporary art and film, as well as the multiple contexts in which these artworks are created and circulated.

0101	Jason Kuo M 1:00pm - 3:30pm	Seats (Total: 25) ASY 4213A

CINE353 **Spike Lee's Joints**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: AASP370. Credit only granted for: AASP370 or CINE353.

In offering extended formal considerations of Spike Lee's cinematic oeuvre--in particular his uses of light, sound, and color--this course is interested in how various modes of critical inquiry can enable or broaden our cultural, political, or historical engagement with a film. We will pay special attention to the question of what it means to encapsulate a specific cultural moment, particularly in relation to differing demands of fictional and non-fictional representation, in sound and image. As well, we will attend to how Lee's aesthetic techniques, cultural politics, and wide-ranging critique of the American racial caste system helps us think about the role of film in ongoing struggles for racial justice.

0101	John Drabinski	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 2123

CINE359P **Special Topics in Genres/Auteurs/Cinema Movements; The Films of Martin Scorsese**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examine narrative cinema from the perspective of content (themes, issues, structures) and style through the lens of genre, auteurship (a concept of authorship in film studies), and/or historical aesthetic movements that have been influential in the development of cinema as an art and film studies as a field. Content varies.

Also offerd as ENGL329P. Credit granted for ENGL329P or CINE359P. Prerequisite: ENGL245, FILM245, CINE245,FILM283, or SLLC283; or permission of department.

0101	Marianne Conroy	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TWS 0221

CINE369R **Special Topics in Film Theories; Cinema and Religion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines specific methodologies (structuralism, feminism, postcolonialism, etc.) for the critical analysis of film. The course will also consider the historical development of theoretical concepts. Content varies.

Cross-listed with RELS319G. Credit only granted for CINE369R or RELS319G. How does religion make itself felt within cinema, the most modern of expressive media? And how does a critical perspective informed by religion affect an understanding of cinema? In this course, we will ask questions about how cinema renders religious stories and spirituality in general. What is the relation between cinematic aesthetics and religious experience?

0101	Eric Zakim	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ESJ B0322

CINE388 **Experiential Learning: Cinema and Media Studies**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Connects students' theoretical understanding of film studies, as obtained through the classroom, to professional experience.

Contact department for information to register for this course.

CINE429C **Special Topics in National/International Cinemas; Contemporary Chinese and Chinese American Cinema on Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with ARTH488C and WGSS498J. Credit only granted for ARTH488C, CINE429C, FILM429C, or WGSS498J. This course examines the representation of Chinese and Chinese-American women in contemporary cinema from mainland China, Taiwan, Hong Kong, and the Chinese diaspora. The changing images of women in a spectrum of genres, by some of the most representative directors, will be studied through the application of major critical concepts in visual culture and cinema studies.

0101	Jason Kuo W 3:00pm - 5:30pm	Seats (Total: 14) ASY 3219

CINE429R **Special Topics in National/International Cinemas; The Mafia: From Corleone to Hollywood**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses in National/International Cinemas may examine one or more national cinematic traditions (including Hollywood cinema), or may look across traditions comparatively, for example at international and/or transnational phenomena. Content varies.

Cross-listed with ITAL499M. Credit only granted for ITAL499M, CINE429R, or FILM329R.

0101	Mauro Resmini MW 3:30pm - 4:45pm	Seats (Total: 25) JMZ 1122

CINE459A **Special Topics in Genres/Auteurs/Cinema Movements; The Heist Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in genres, auteurs, and cinema movements.

A survey of the heist film in relation to other film genres and contemporary capitalist culture more broadly.

0101	Luka Arsenjuk Tu 3:30pm - 6:00pm	Seats (Total: 25) JMZ 2122

CINE461 **Political Cinema**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL245, FILM245, or CINE245; or permission of ARHU-School of Languages, Literatures, and Cultures department. Cross-listed with: SLLC461. Credit only granted for: CINE461, FILM461 or SLLC461. Formerly: FILM461.

Histories of cinema and politics in the 20th century.

0101	Luka Arsenjuk	Seats (Total: 20)
	Th 3:30pm - 6:00pm	JMZ 2207

CINE467 Visions and Fictions from Spain

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: One course from SPAN331, SPAN332, SPAN333, SPAN361, SPAN362 or SPAN363; or permission of instructor. Recommended: SPAN333. Cross-listed with: SPAN467. Credit only granted for: CINE427, CINE467, FILM427, SPAN427, or SPAN467. Formerly: FILM427, CINE427, and SPAN427.

Overview of Spanish cinema from the end of the 19th century through present day Spain. Exploration of the production of literary and cinematic texts in their social, historical, political, religious, and cultural contexts.

0101	Jose Naharro-Calderon	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2207

CINE469E Special Topics in Film Theories II; Representing the Holocaust

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in film theories.

Cross-listed with JWST419C. Credit only granted for CINE469E, FILM469E,or JWST419C. An examination of cinematic representations of the Jewish Holocaust in the 20th century, within the overlapping contexts of three critical lines of investigation: the efficacy and social function of aesthetic representation; the expressiveness of film in relation and contrast to other media (graphic literature, prose & poetry, photography); and genocide as a broad cinematic theme (Rwanda, Cambodia, slavery in the Americas).

0101	Eric Zakim	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ESJ B0322

CINE499 Directed Study in Cinema and Media Studies

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Readings and Research in Film Studies under faculty supervison.

Contact department for information to register for this course.

CLAS Classics Fall 2022

CLAS169M **Special Topics in Study Abroad I; Myths and Legends**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS169R **Special Topics in Study Abroad I; Ancient Rome: Civilization and Legacy**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CLAS170 **Ancient Myths and Modern Lives**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HL General Education: DSHU, SCIS

Cross-listed with: RELS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Katherine Wasdin MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0102	Katherine Wasdin MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 TYD 1118	Discussion
0103	Katherine Wasdin MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 TWS 0320	Discussion
0104	Katherine Wasdin MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 VMH 1207	Discussion

0105	Katherine Wasdin MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 TLF 1103	Discussion
0106	Katherine Wasdin MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3211	Discussion
0107	Katherine Wasdin MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 ASY 3203	Discussion
0108	Katherine Wasdin MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 SQH 1119	Discussion
0109	Katherine Wasdin MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 22) MMH 1400 TWS 1100	Discussion
FC01	Madeleine Goh TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TLF 1103	
FC02	Madeleine Goh TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TLF 1103	
FC03	Madeleine Goh MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TLF 1103	
FC05	Edward Parker W 6:00pm - 7:15pm Class time/details on ELMs	Seats (Total: 24) MMH 1304 ONLINE	Discussion

CLAS275 **Why do we laugh?**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, SCIS

Additional information: All readings will be done in English translation.

An introduction to the breadth and complexity of humor's role in society. Students will explore ancient Greek and Roman comedies side-by-side with contemporary sitcoms and movies, to learn the explanations that various disciplines have offered about why we laugh, and to understand the major impact humor has in how we see ourselves and our world.

0101	Francisco Barrenechea	Seats (Total: 75)
	TuTh 11:00am - 12:15pm	TWS 0310

CLAS305 Archaeological Methods and Practice

Credits: 3 | Grading Method: Regular | General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, ARTH305, JWST319Y. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Matthew Suriano	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	SQH 1103

CLAS312 The Modernity of Athenian Democracy

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSHU

Examines the question of how Ancient Greek thought can be a tool for facing the challenges of the modern world. Topics such as political participation and engagement in politics, lawfulness and justice, freedom and autonomy, democracy and civic responsibility are found at the core of Ancient Greek thought. In addition to these topics, the course explores, through the teachings of ancient Greek philosophers, historians, and poets, the questions of virtue and happiness at a personal level and the pursuit of happiness at the societal level. Love and friendship are necessary virtues to shape a harmonious and prosperous polis. By studying selected excerpts from the primary sources of Ancient Greek literature in translation, the course defines the core values of democratic society from the viewpoint of the Greeks.

0101	Polyvia Parara	Seats (Total: 35)
	MW 2:00pm - 3:15pm	SYM 0215

CLAS470 Approaches to Greek Mythology

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Prerequisite: CLAS170; or permission of ARHU-Classics department.

Ancient and modern approaches to understanding Greek myth as expression of human experience, including interpretations drawn from psychology, anthropology, and comparative mythology.

0101	Lillian Doherty	Seats (Total: 35)
	TuTh 9:30am - 10:45am	SQH 1121

CLAS499 **Independent Study in Classical Languages and Literatures**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CLFS Chemical and Life Sciences Fall 2022

CLFS608 **Seminar in Current Topics in Chemical and Life Science; Scholarly Paper**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact Dr. Brett Kent (bkent@umd.edu) to establish a mentor; and then contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS608A **Seminar in Current Topics in Chemical and Life Science; Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Seminar in current topics in the Life Sciences. Contact Program Director or instructor before registering.

Contact the Office of Extended Studies (oes@umd.edu) to register.

Contact department for information to register for this course.

CLFS609K **Special Topics; Current Topics in Biomedical Research**

Credits: 3 Grading Method: Regular, Audit

Individual instruction course. Contact Program Director or instructor before registering.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact oes@umd.edu.

PLC1	Cristina Banuelos	Seats (Total: 5)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE

CLFS610 **Natural Products Chemistry**

Credits: 3 Grading Method: Regular

Restriction: Permission of CMNS-Chemical & Life Sciences department. Credit only granted for: LFSC609D or LFSC610. Formerly: LFSC609D.

Foundations of natural products chemistry; how nature goes about making (biosynthesizing) these compounds and elements of enzymology and genomics relevant to production of these compounds; relevance of natural products chemistry as a driving force for drug discovery and innovation in biotechnology.

Must be in the Master of Chemical and Life Sciences program. All other graduate students must request permission. Contact oes@umd.edu.

Click here for program information.

PLC1	Marjan Alaghmand	Seats (Total: 8)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE

CMLT Comparative Literature Fall 2022

CMLT235 Black Diaspora Literature and Culture

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Examination of key works by writers of the African Diaspora. Relationship among black people across multiple geographic spaces; Africa, the Caribbean, the United States, Europe, Latin America, and Asia. Specific historical, cultural, and literary contexts; themes such as gender, sexuality, migration, slavery, freedom, and equality. Readings may include literary texts (fiction, poetry, drama), music and film. All readings in English, but drawn from multiple languages of the black diaspora, including English, Spanish, French and Portuguese.

0101	Laura Williams	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KNI 1105

CMLT269C Special Topics in Study Abroad II; Modern Catalan Literature

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT270 Global Literature and Social Change

Credits: 3 | Grading Method: Regular | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political, and economic perspectives.

0101	Fernando Duran	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KNI 1105

0201	Da Som Lee	Seats (Total: 30)
	MWF 11:00am - 11:50am	TWS 0214

CMLT275 **World Literature by Women**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: WGSS275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0201	Andrea Knowles	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TWS 1107

CMLT277 **Literatures of the Americas**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

0101	Blake Wilder	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TWS 0201

CMLT280 **Film Art in a Global Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSHU, DVUP

Cross-listed with: CINE280. Credit only granted for: CINE280, FILM298D or CMLT280. Formerly: FILM298D.

Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

0101	Joshua Weiss	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TYD 2106
0201	Valentina Rosales	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TWS 0214

CMLT369A **Special Topics in Study Abroad III; Postcolonial Literatures in English I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT369T **Special Topics in Study Abroad III; Politics and Literature in the 20th Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT369X **Special Topics in Study Abroad III; Shakespeare and Lope de Vega**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

CMLT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-English department.

Contact department for information to register for this course.

CMLT398L **Special Topics in Comparative Studies; Sexuality in the Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL329C. Credit will be granted for only one of the following: CMLT398L, CMLT498L, or ENGL329C.

0101	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CMLT398N **Special Topics in Comparative Studies; Gypsy Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Cross-listed with ENGL379V. Credit will be granted for only one of the following: CMLT398N, CMLT498N, or ENGL379V.

0101	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

CMLT398T **Special Topics in Comparative Studies; Postcolonial Literature in English I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in comparitive studies.

Contact department for information to register for this course.

CMLT498V **Selected Topics in Comparative Studies; Lost in Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

CMLT679D **Topics in Comparative Studies; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Seminar in modern and contemporary literature: as announced.

Cross-listed with PERS498M, HIST419C, PERS689M, RELS429B, WGSS498D, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller W 6:00pm - 8:30pm	Seats (Total: 15) JMZ 1215

CMLT679L **Topics in Comparative Studies; The Refugee: Fictions of Asylum/Asylum Fictions**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Seminar in modern and contemporary literature: as announced.

Repeatable to 9 credits if content differs. Cross-listed with ENGL659L. Credit granted for ENGL659L or CMLT679L.

0101	Sangeeta Ray Th 3:30pm - 6:00pm	Seats (Total: 14) TWS 3132

CMLT699 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member.

Contact department for information to register for this course.

CMLT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMLT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

CMLT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC Computer Science Fall 2022

CMSC100 **Bits and Bytes of Computer and Information Sciences**

Credits: 1 Grading Method: Regular

Restriction: For first time freshmen and first time transfer students. Cross-listed with: INST101. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Madeline Georgevich M 1:00pm - 1:50pm	Seats (Total: 40) IRB 1207
0201	Charlotte Avery F 11:00am - 11:50am	Seats (Total: 40) IRB 2207
0301	Maggie Loughlin Th 4:00pm - 4:50pm	Seats (Total: 40) IRB 2207

CMSC106 **Introduction to C Programming**

Credits: 4 Grading Method: Regular

Prerequisite: MATH115. Restriction: Must not be in Computer Science program; and must not have completed any courses from CMSC131-499 course range. Credit only granted for: CMSC106 or CMSC122.

Design and analysis of programs in C. An introduction to computing using structured programming concepts. Intended for students with no or minimal programming experience.

0101	Ilchul Yoon	Seats (Total: 50)	
	MW 3:30pm - 4:45pm	CSI 1121	
	MW 5:00pm - 5:50pm	CSI 1121	Discussion

CMSC122 **Introduction to Computer Programming via the Web**

Credits: 3 Grading Method: Regular CORE: IE General Education: DSSP

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: CMSC106, or CMSC122.

Introduction to computer programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies.

0101	Pedram Sadeghian MWF 1:00pm - 1:50pm	Seats (Total: 125) CSI 1115	
FC01	Jennifer Manly TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 60) BPS 1243	

CMSC125 **Introduction to Computing**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in MATH115 or higher. Restriction: Must not be in the Computer Science program; and must not have completed any courses from CMSC131-499; and must not have completed BMGT302, IMDM127 or INST126.

Introduces you to the computing field as a whole. You will gain skills used across the spectrum of computing majors and learn about the great variety of routes into the various areas of study and employment in technological fields.

0101	Elias Gonzalez TuTh 2:00pm - 3:15pm	Seats (Total: 50) IRB 2207	

CMSC131 **Object-Oriented Programming I**

Credits: 4 Grading Method: Regular

Corequisite: MATH140. Credit only granted for: CMSC131, CMSC133, or IMDM127.

Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

0101	Nelson Padua-Perez MWF 10:00am - 10:50am MW 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0102	Nelson Padua-Perez MWF 10:00am - 10:50am MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion

0103	Nelson Padua-Perez MWF 10:00am - 10:50am MW 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0104	Nelson Padua-Perez MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0105	Nelson Padua-Perez MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0106	Nelson Padua-Perez MWF 10:00am - 10:50am MW 4:00pm - 4:50pm	Seats (Total: 34) IRB 0324 CSI 2120	 Discussion
0108	Nelson Padua-Perez MWF 10:00am - 10:50am MW 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0109	Nelson Padua-Perez MWF 10:00am - 10:50am MW 3:00pm - 3:50pm	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0201	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0203	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 34) IRB 0324 PHY 1219	 Discussion
0204	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 12:30pm - 1:20pm	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0205	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion

0206	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0207	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 5:00pm - 5:50pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0208	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 4:00pm - 4:50pm	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0209	Fawzi Emad MWF 12:00pm - 12:50pm TuTh 9:30am - 10:20am	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0301	Nelson Padua-Perez MWF 9:00am - 9:50am MW 10:00am - 10:50am	Seats (Total: 32) IRB 0324 IRB 2207	 Discussion
0302	Nelson Padua-Perez MWF 9:00am - 9:50am MW 11:00am - 11:50am	Seats (Total: 32) IRB 0324 IRB 2207	 Discussion
0303	Nelson Padua-Perez MWF 9:00am - 9:50am MW 12:00pm - 12:50pm	Seats (Total: 32) IRB 0324 IRB 2107	 Discussion
0304	Nelson Padua-Perez MWF 9:00am - 9:50am MW 1:00pm - 1:50pm	Seats (Total: 32) IRB 0324 IRB 2207	 Discussion
0305	Nelson Padua-Perez MWF 9:00am - 9:50am MW 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 IRB 2107	 Discussion
0307	Nelson Padua-Perez MWF 9:00am - 9:50am MW 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 3120	 Discussion

0308	Nelson Padua-Perez MWF 9:00am - 9:50am MW 5:00pm - 5:50pm	Seats (Total: 32) IRB 0324 IRB 2207	Discussion
0309	Nelson Padua-Perez MWF 9:00am - 9:50am MW 10:00am - 10:50am	Seats (Total: 32) IRB 0324 IRB 2107	Discussion
0401	Fawzi Emad MWF 11:00am - 11:50am TuTh 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 CSI 2120	Discussion
0402	Fawzi Emad MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0403	Fawzi Emad MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0404	Fawzi Emad MWF 11:00am - 11:50am TuTh 12:30pm - 1:20pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0405	Fawzi Emad MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0406	Fawzi Emad MWF 11:00am - 11:50am TuTh 3:30pm - 4:20pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0407	Fawzi Emad MWF 11:00am - 11:50am TuTh 5:00pm - 5:50pm	Seats (Total: 32) IRB 0324 CSI 2107	Discussion
0408	Fawzi Emad MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 32) IRB 0324 CSI 2120	Discussion

0410	Fawzi Emad MWF 11:00am - 11:50am TuTh 9:30am - 10:20am	Seats (Total: 32) IRB 0324 CSI 2120	Discussion
FC01	Elias Gonzalez TuTh 6:00pm - 7:15pm MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 41) SPH 1312 PHY 0405	Discussion
FC02	Elias Gonzalez TuTh 6:00pm - 7:15pm MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 41) SPH 1312 PHY 1402	Discussion
FC03	Elias Gonzalez TuTh 6:00pm - 7:15pm MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 42) SPH 1312 PHY 2214	Discussion
FC04	Elias Gonzalez TuTh 6:00pm - 7:15pm MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 41) SPH 1312 ITV 1100	Discussion

CMSC132 Object-Oriented Programming II

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC131; or must have earned a score of 5 on the A Java AP exam; or must have earned a satisfactory score on the departmental placement exam. And minimum grade of C- in MATH140.

Introduction to use of computers to solve problems using software engineering principles. Design, build, test, and debug medium -size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

0101	Larry Herman MWF 1:00pm - 1:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 2118	Discussion
0102	Larry Herman MWF 1:00pm - 1:50pm MW 8:00am - 8:50am	Seats (Total: 30) IRB 0324 CSI 1122	Discussion

0103	Larry Herman MWF 1:00pm - 1:50pm MW 9:00am - 9:50am	Seats (Total: 34) IRB 0324 CSI 2118	 Discussion
0104	Larry Herman MWF 1:00pm - 1:50pm MW 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0105	Larry Herman MWF 1:00pm - 1:50pm MW 10:00am - 10:50am	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0106	Larry Herman MWF 1:00pm - 1:50pm MW 11:00am - 11:50am	Seats (Total: 34) IRB 0324 CSI 3120	 Discussion
0107	Larry Herman MWF 1:00pm - 1:50pm MW 9:00am - 9:50am	Seats (Total: 34) IRB 0324 CSI 2107	 Discussion
0108	Larry Herman MWF 1:00pm - 1:50pm MW 8:00am - 8:50am	Seats (Total: 30) IRB 0324 CSI 2107	 Discussion
0201	Larry Herman MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 1122	 Discussion
0202	Larry Herman MWF 2:00pm - 2:50pm MW 12:00pm - 12:50pm	Seats (Total: 36) IRB 0324 CSI 2107	 Discussion
0203	Larry Herman MWF 2:00pm - 2:50pm MW 9:00am - 9:50am	Seats (Total: 30) IRB 0324 CSI 1121	 Discussion
0204	Larry Herman MWF 2:00pm - 2:50pm MW 8:00am - 8:50am	Seats (Total: 30) IRB 0324 CSI 1121	 Discussion

0205	Larry Herman MWF 2:00pm - 2:50pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0206	Larry Herman MWF 2:00pm - 2:50pm MW 11:00am - 11:50am	Seats (Total: 36) IRB 0324 CSI 2118	Discussion
0207	Larry Herman MWF 2:00pm - 2:50pm MW 10:00am - 10:50am	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0208	Larry Herman MWF 2:00pm - 2:50pm MW 8:00am - 8:50am	Seats (Total: 30) IRB 0324 CSI 2118	Discussion
0301	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 8:00am - 8:50am	Seats (Total: 35) CSI 1115 CSI 3118	Discussion
0302	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 35) CSI 1115 CSI 3118	Discussion
0303	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 10:00am - 10:50am	Seats (Total: 35) CSI 1115 CSI 2118	Discussion
0304	Pedram Sadeghian MWF 12:00pm - 12:50pm MW 9:00am - 9:50am	Seats (Total: 35) CSI 1115 CSI 2120	Discussion

CMSC133 **Object Oriented Programming I Beyond Fundamentals**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in MATH140. Restriction: Permission of CMNS-Computer Science department; and student must have earned a 4 on the AP Computer Science A exam or a satisfactory score on the CMSC131 department placement exam. Credit only granted for: CMSC131, CMSC133, or IMDM127.

An introduction to computer science and object-oriented programming for students with prior Java programming knowledge (conditionals, loops, methods). Program design, implementation, and testing using object-oriented techniques. All programming will be done in Java using a graphical IDE.

0101	Nelson Padua-Perez M 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 88) CSI 2117 CSI 2117	 Discussion

CMSC216 **Introduction to Computer Systems**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC132; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission of CMSC - Computer Science department.

Introduction to the interaction between user programs and the operating system/hardware. Major topics include C programming, introductory systems programming, and assembly language. Other concepts covered include UNIX, machine data representation, thread management, optimization, and virtual memory. Programming is done in the Linux Environment.

0101	Herve Franceschi TuTh 9:30am - 10:45am MW 12:00pm - 12:50pm	Seats (Total: 38) ESJ 0202 IRB 1207	 Discussion
0102	Herve Franceschi TuTh 9:30am - 10:45am MW 3:00pm - 3:50pm	Seats (Total: 38) ESJ 0202 IRB 1207	 Discussion
0103	Herve Franceschi TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 38) ESJ 0202 IRB 2207	 Discussion
0104	Herve Franceschi TuTh 9:30am - 10:45am MW 11:00am - 11:50am	Seats (Total: 38) ESJ 0202 IRB 1207	 Discussion
0105	Herve Franceschi TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 38) ESJ 0202 IRB 1207	 Discussion
0106	Herve Franceschi TuTh 9:30am - 10:45am MW 2:00pm - 2:50pm	Seats (Total: 38) ESJ 0202 IRB 1207	 Discussion

0107	Herve Franceschi TuTh 9:30am - 10:45am MW 4:00pm - 4:50pm	Seats (Total: 36) ESJ 0202 IRB 2107	Discussion
0108	Herve Franceschi TuTh 9:30am - 10:45am MW 2:00pm - 2:50pm	Seats (Total: 36) ESJ 0202 CSI 1122	Discussion
0109	Herve Franceschi TuTh 9:30am - 10:45am MW 4:00pm - 4:50pm	Seats (Total: 34) ESJ 0202 CSI 1122	Discussion
0201	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 3:00pm - 3:50pm	Seats (Total: 38) IRB 0324 IRB 2107	Discussion
0202	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 38) IRB 0324 IRB 2107	Discussion
0203	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 IRB 2207	Discussion
0204	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 5:00pm - 5:50pm	Seats (Total: 37) IRB 0324 IRB 1207	Discussion
0205	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 37) IRB 0324 IRB 2207	Discussion
0206	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 38) IRB 0324 IRB 1207	Discussion
0207	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 38) IRB 0324 IRB 1207	Discussion

0208	Ilchul Yoon TuTh 2:00pm - 3:15pm MW 2:00pm - 2:50pm	Seats (Total: 38) IRB 0324 IRB 2207	Discussion
0301	Ilchul Yoon TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 38) ESJ 0202 IRB 2107	Discussion
0302	Ilchul Yoon TuTh 11:00am - 12:15pm MW 11:00am - 11:50am	Seats (Total: 39) ESJ 0202 IRB 2107	Discussion
0303	Ilchul Yoon TuTh 11:00am - 12:15pm MW 8:00am - 8:50am	Seats (Total: 39) ESJ 0202 IRB 2107	Discussion
0304	Ilchul Yoon TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 39) ESJ 0202 CSI 3118	Discussion
0305	Ilchul Yoon TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 39) ESJ 0202 CSI 2118	Discussion
0306	Ilchul Yoon TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 39) ESJ 0202 IRB 1116	Discussion

CMSC250 **Discrete Structures**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC131; and minimum grade of C- in MATH141. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permissions of CMSC - Computer Science department.

Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

0101	Paul Kline TuTh 2:00pm - 3:15pm MW 4:00pm - 4:50pm	Seats (Total: 34) ESJ 0224 CSI 2118	Discussion
0102	Paul Kline TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 34) ESJ 0224 CSI 3120	Discussion
0103	Paul Kline TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 34) ESJ 0224 CSI 3118	Discussion
0104	Paul Kline TuTh 2:00pm - 3:15pm MW 10:00am - 10:50am	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0105	Paul Kline TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 34) ESJ 0224 CSI 2120	Discussion
0107	Paul Kline TuTh 2:00pm - 3:15pm MW 1:00pm - 1:50pm	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0108	Paul Kline TuTh 2:00pm - 3:15pm MW 3:00pm - 3:50pm	Seats (Total: 34) ESJ 0224 CSI 1122	Discussion
0201	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 CSI 3120	Discussion
0202	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 10:00am - 10:50am	Seats (Total: 38) IRB 0324 CSI 1121	Discussion
0203	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 11:00am - 11:50am	Seats (Total: 38) IRB 0324 CSI 1121	Discussion

0204	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 12:00pm - 12:50pm	Seats (Total: 38) IRB 0324 CSI 1122	Discussion
0205	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 8:00am - 8:50am	Seats (Total: 36) IRB 0324 CSI 3120	Discussion
0206	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 9:00am - 9:50am	Seats (Total: 36) IRB 0324 CSI 3120	Discussion
0207	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 3118	Discussion
0208	Mohammad Nayeem Teli TuTh 12:30pm - 1:45pm MW 1:00pm - 1:50pm	Seats (Total: 36) IRB 0324 CSI 2107	Discussion
0301	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 2:00pm - 2:50pm	Seats (Total: 38) EGR 1202 CSI 2107	Discussion
0302	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 11:00am - 11:50am	Seats (Total: 38) EGR 1202 CSI 2107	Discussion
0303	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 3:00pm - 3:50pm	Seats (Total: 38) EGR 1202 CSI 2107	Discussion
0304	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 10:00am - 10:50am	Seats (Total: 38) EGR 1202 CSI 2120	Discussion
0305	Cliff Bakalian TuTh 3:30pm - 4:45pm MW 4:00pm - 4:50pm	Seats (Total: 38) EGR 1202 CSI 2107	Discussion

CMSC298A **Special Topics in Computer Science**

(Perm req) Credits: 1-4 Grading Method: Sat-Fail

A course designed to allow a lower level student to pursue a specialized topic or project.

Contact department for information to register for this course.

CMSC320 **Introduction to Data Science**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: STAT426 or CMSC320.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of several topics including statistical data analysis, basic data mining and machine learning algorithms, large-scale data management, cloud computing, and information visualization.

0101	Maksym Morawski MW 3:30pm - 4:45pm	Seats (Total: 280) IRB 0324	
0201	Maksym Morawski MWF 11:00am - 11:50am	Seats (Total: 145) CSI 1115	

CMSC330 **Organization of Programming Languages**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in the Computer Science Minor program; or must be in Engineering: Computer program; and Permission of CMSC - Computer Science department.

A study of programming languages, including their syntax, semantics, and implementation. Several different models of languages are discussed, including dynamic, scripting (e.g., Ruby, Python) functional (e.g., OCaml, Haskell, Scheme), and memory safe systems programming (e.g., Rust). Explores language features such as formal syntax, scoping and binding of variables, higher-order programming, typing, and type polymorphism. Introduces finite automata, context free grammar, parsing, lambda calculus, and basics of security attacks and software security.

0101	Jose Calderon TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0102	Jose Calderon TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0103	Jose Calderon TuTh 9:30am - 10:45am F 2:00pm - 2:50pm	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion

0104	Jose Calderon TuTh 9:30am - 10:45am F 3:00pm - 3:50pm	Seats (Total: 36) IRB 0324 IRB 1207	 Discussion
0105	Jose Calderon TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0106	Jose Calderon TuTh 9:30am - 10:45am F 4:00pm - 4:50pm	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0107	Jose Calderon TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0108	Jose Calderon TuTh 9:30am - 10:45am F 1:00pm - 1:50pm	Seats (Total: 34) IRB 0324 IRB 2107	 Discussion
0201	Cliff Bakalian TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 34) IRB 0324 IRB 2207	 Discussion
0203	Cliff Bakalian TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0204	Cliff Bakalian TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 34) IRB 0324 IRB 1207	 Discussion
0205	Cliff Bakalian TuTh 11:00am - 12:15pm F 2:00pm - 2:50pm	Seats (Total: 32) IRB 0324 IRB 2107	 Discussion
0206	Cliff Bakalian TuTh 11:00am - 12:15pm F 3:00pm - 3:50pm	Seats (Total: 32) IRB 0324 IRB 2107	 Discussion

0207	Cliff Bakalian TuTh 11:00am - 12:15pm F 4:00pm - 4:50pm	Seats (Total: 32) IRB 0324 IRB 2107	Discussion
0208	Cliff Bakalian TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 32) IRB 0324 IRB 2107	Discussion
0209	Cliff Bakalian TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 32) IRB 0324 IRB 2207	Discussion

CMSC335 **Web Application Development with JavaScript**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250. Restriction: Permission of CMNS-Computer Science Department. Credit only granted for: CMSC389N or CMSC335. Formerly: CMSC389N.

Provides an introduction to modern ways of developing Web Applications/Services using JavaScript for both front-end and back-end. The course covers topics on fundamental JavaScript language constructs, server-side JavaScript, back-end data persistence, and client-side JavaScript to build Web Applications that interact with Web services and back-end databases.

0101	Nelson Padua-Perez MW 3:30pm - 4:45pm	Seats (Total: 300) ESJ 0202	

CMSC351 **Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department. Credit only granted for: CMSC251 or CMSC351.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Herve Franceschi MWF 9:00am - 9:50am	Seats (Total: 240) ESJ 0224	
0201	Justin Wyss-Gallifent TuTh 3:30pm - 4:45pm	Seats (Total: 300) IRB 0324	

CMSC351H **Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC250 and CMSC216. Restriction: Must be in a major within the CMNS-Computer Science department; or must be in Engineering: Computer program; or must be in the Computer Science Minor program; and Permission from the CMSC - Computer Science department. Credit only granted for: CMSC251 or CMSC351.

A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analyzed using mathematical techniques to solve recurrences and summations.

0101	Mohammad Hajiaghayi	Seats (Total: 40)
	TuTh 9:30am - 10:45am	CSI 1122

CMSC388J **Special Topics in Computer Science; Building Secure Web Applications with Python and Flask**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Michael Marsh	Seats (Total: 35)
	F 11:00am - 11:50am	CSI 2107

CMSC388U **Special Topics in Computer Science; Introduction to Ethical Hacking (Hack the Class)**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Dave Levin	Seats (Total: 36)
	F 12:00pm - 12:50pm	CSI 2107

CMSC389G **Special Topics in Computer Science; What to do After Landing a SWE Job**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Garrett Vanhoy F 2:00pm - 2:50pm	Seats (Total: 30) CSI 2107

CMSC389O **Special Topics in Computer Science; The Coding Interview**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Thomas Goldstein F 11:00am - 11:50am	Seats (Total: 30) CSI 1122
0201	Thomas Goldstein F 12:00pm - 12:50pm	Seats (Total: 30) CSI 1122
0301	Thomas Goldstein F 1:00pm - 1:50pm	Seats (Total: 30) CSI 1122
0401	Thomas Goldstein F 2:00pm - 2:50pm	Seats (Total: 30) CSI 1122
0501	Thomas Goldstein F 3:00pm - 3:50pm	Seats (Total: 30) CSI 1122

CMSC389P **Special Topics in Computer Science; Mastering the PM Interview**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Huaishu Peng F 12:00pm - 12:50pm	Seats (Total: 30) CSI 2120

CMSC389T **Special Topics in Computer Science; Introduction to Git, Github and Project Management**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science; course may be used as electives for the undergraduate degree and minor.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Cliff Bakalian	Seats (Total: 40)
	W 11:00am - 11:50am	CSI 1122

CMSC390 **Honors Paper**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be admitted to the Computer Science Honors Program.

Special study or research directed toward preparation of honors paper.

Contact department for information to register for this course.

CMSC395 **Teaching Techniques for Computer Science**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Students must be hired as a teaching assistant in the Computer Science Department for the semester they are registered for the course; and permission of the Computer Science Department.

This course will assure that teaching assistants become better skilled at applying effective teaching practices that improve the classroom environment while learning methods to implement mechanisms to improve diversity and inclusion. Legal and ethical aspects of the role will also be considered. Students in the class will be currently working as a teaching assistant and, therefore, be able to apply what they are learning immediately in their own context.

0101	Elias Gonzalez	Seats (Total: 50)
	W 12:00pm - 12:50pm	CSI 2117

CMSC396H **Computer Science Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: Must have admission into Computer Science Departmental Honors Program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC297 or CMSC396. Formerly: CMSC297.

Overview of computer science research activities, techniques, and tools. Diverse research areas will be covered, including systems, networks, artificial intelligence, human-computer interaction, software engineering, graphics, vision, and theory.

0101	Dave Levin	Seats (Total: 50)
	W 1:00pm - 1:50pm	IRB 1207

CMSC398D **Special Topics in Computer Science; Introduction to Artificial Intelligence in Healthcare**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Wiseley Wong	Seats (Total: 30)
	F 3:00pm - 3:50pm	CSI 2107

CMSC398E **Special Topics in Computer Science; Essential Data Science Skill & Techniques**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CNMS-Computer Science department.

0101	Justin Wyss-Gallifent	Seats (Total: 30)
	F 1:00pm - 1:50pm	CSI 2107

CMSC398F **Special Topics in Computer Science; Introduction to Blockchain and Cryptocurrency**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisite: Minimum grade of C- in CMSC216 and CMSC250; and permission of CMNS-Computer Science department.

0101	Jonathan Katz	Seats (Total: 30)
	F 10:00am - 10:50am	CSI 1121

CMSC411 **Computer Systems Architecture**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: ENEE446 or CMSC411.

Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

0101	Bahar Asgari	Seats (Total: 120)
	MW 3:30pm - 4:45pm	CSI 1115

CMSC412 **Operating Systems**

(Perm req)

Credits: 4 Grading Method: Regular CORE: CS

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and 1 course with a minimum grade of C- from (CMSC414, CMSC417, CMSC420, CMSC430, CMSC433, CMSC435, ENEE440, ENEE457). Restriction: Permission of CMNS-Computer Science department; or must be in one of the following programs (Computer Science (Master's); Computer Science (Doctoral)). Credit only granted for: CMSC412 or ENEE447.

A hands-on introduction to operating systems, including topics in: multiprogramming, communication and synchronization, memory management, IO subsystems, and resource scheduling polices. The laboratory component consists of constructing a small kernel, including functions for device IO, multi-tasking, and memory management.

0101	Ashok Agrawala	Seats (Total: 26)	
	TuTh 11:00am - 12:15pm MW 12:00pm - 12:50pm	IRB 2107 CSI 1121	Discussion
0102	Ashok Agrawala	Seats (Total: 26)	
	TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	IRB 2107 CSI 1121	Discussion

CMSC414 **Computer and Network Security**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC414, ENEE459C, or ENEE457.

An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

0101	Michael Marsh	Seats (Total: 156)	
	MW 2:00pm - 3:15pm	ESJ 1224	

CMSC416 **Introduction to Parallel Computing**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or permission of instructor. Restriction: Permission of CMNS-Computer Science department. Credit only granted for: CMSC416 or CMSC498X. Formerly: CMSC498X.

Introduction to parallel computing. Topics include programming for shared memory and distributed memory parallel architectures, and fundamental issues in design, development, and performance analysis of parallel programs.

0101	Abhinav Bhatele TuTh 11:00am - 12:15pm	Seats (Total: 80) IRB 0318

CMSC417 **Computer Networks**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

0101	Samrat Bhattacharjee TuTh 2:00pm - 3:15pm	Seats (Total: 90) IRB 0318

CMSC420 **Advanced Data Structures**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Description, properties, and storage allocation functions of data structures including balanced binary trees, B-Trees, hash tables, skiplists, tries, KD-Trees and Quadtrees. Algorithms for manipulating structures. Applications from areas such as String Processing, Computer Graphics, Information Retrieval, Computer Networks, Computer Vision, and Operating Systems.

0101	Michael Marsh MW 3:30pm - 4:45pm	Seats (Total: 156) ESJ 1224
0201	David Mount TuTh 9:30am - 10:45am	Seats (Total: 145) CSI 1115
0301	Hanan Samet TuTh 12:30pm - 1:45pm	Seats (Total: 60) CSI 2117
0401	Justin Wyss-Gallifent TuTh 11:00am - 12:15pm	Seats (Total: 100) KEB 1110

CMSC421 **Introduction to Artificial Intelligence**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Introduces a range of ideas and methods in AI, varying semester to semester but chosen largely from: automated heuristic search, planning, games, knowledge representation, logical and statistical inference, learning, natural language processing, vision, robotics, cognitive modeling, and intelligent agents. Programming projects will help students obtain a hands-on feel for various topics.

0101	Pratap Tokekar TuTh 12:30pm - 1:45pm	Seats (Total: 120) CHE 2110
0201	Tianyi Zhou, Yao-Chih Lee TuTh 11:00am - 12:15pm	Seats (Total: 145) CSI 1115

CMSC422 **Introduction to Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and permission of CMNS-Computer Science department.

Machine Learning studies representations and algorithms that allow machines to improve their performance on a task from experience. This is a broad overview of existing methods for machine learning and an introduction to adaptive systems in general. Emphasis is given to practical aspects of machine learning and data mining.

0101	Mohammad Nayeem Teli TuTh 3:30pm - 4:45pm	Seats (Total: 140) CSI 1115
0201	Furong Huang MW 5:00pm - 6:15pm	Seats (Total: 140) ESJ 1224

CMSC423 **Bioinformatic Algorithms, Databases, and Tools**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

An introduction to the main algorithms, databases, and tools used in bioinformatics. Topics may include assembly and analysis of genome sequences, reconstructing evolutionary histories, predicting protein structure, and clustering of biological data. Use of scripting languages to perform analysis tasks on biological data. No prior knowledge of biology is assumed.

0101	Robert Patro TuTh 11:00am - 12:15pm	Seats (Total: 80) CSI 3117

CMSC424 **Database Design**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Students are introduced to database systems and motivates the database approach as a mechanism for modeling the real world. An in-depth coverage of the relational model, logical database design, query languages, and other database concepts including query optimization, concurrency control; transaction management, and log based crash recovery. Distributed and Web database architectures are also discussed.

0101	Peter Keleher TuTh 11:00am - 12:15pm	Seats (Total: 96) IRB 1116
0201	Amol Deshpande TuTh 9:30am - 10:45am	Seats (Total: 96) IRB 1116

CMSC425 **Game Programming**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMNS-Computer Science department.

An introduction to the principles and practice of computer game programming and design. This includes an introduction to game hardware and systems, the principles of game design, object and terrain modeling, game physics, artificial intelligence for games, networking for games, rendering and animation, and aural rendering. Course topics are reinforced through the design and implementation of a working computer game.

0101	Stevens Miller TuTh 3:30pm - 4:45pm	Seats (Total: 85) IRB 1116

CMSC426 **Computer Vision**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351 and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program; or permission of the instructor. Restriction: Permission of CMNS-Computer Science department.

An introduction to basic concepts and techniques in computervision. This includes low-level operations such as image filtering and edge detection, 3D reconstruction of scenes using stereo and structure from motion, and object detection, recognition and classification.

0101	John Aloimonos	Seats (Total: 140)
	TuTh 12:30pm - 1:45pm	CSI 1115

CMSC427 **Computer Graphics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Permission of CMNS-Computer Science department.

An introduction to 3D computer graphics, focusing on the underlying building blocks and algorithms for applications such as 3D computer games, and augmented and virtual reality (AR/VR). Covers the basics of 3D image generation and 3D modeling, with an emphasis on interactive applications. Discusses the representation of 3D geometry, 3D transformations, projections, rasterization, basics of color spaces, texturing and lighting models, as well as programming of modern Graphics Processing Units (GPUs). Includes programming projects where students build their own 3D rendering engine step-by-step.

0101	Roger Eastman	Seats (Total: 80)
	TuTh 9:30am - 10:45am	CSI 2117

CMSC430 **Introduction to Compilers**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Topics include lexical analysis, parsing, intermediate representations, program analysis, optimization, and code generation.

0101	David Van Horn	Seats (Total: 145)
	TuTh 2:00pm - 3:15pm	CSI 1115

CMSC433 **Programming Language Technologies and Paradigms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

0101	Liyi Li	Seats (Total: 190)
	TuTh 11:00am - 12:15pm	EGR 1202

CMSC434 **Introduction to Human-Computer Interaction**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

0101	Evan Golub	Seats (Total: 54)
	TuTh 11:00am - 12:15pm	IRB 1207
0201	Evan Golub	Seats (Total: 54)
	TuTh 12:30pm - 1:45pm	IRB 1207

CMSC435 **Software Engineering**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: 1 course with a minimum grade of C- from (CMSC412, CMSC417, CMSC420, CMSC430, CMSC433, ENEE447); and permission of CMNS-Computer Science department.

State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

0101	James Purtilo	Seats (Total: 43)
	TuTh 2:00pm - 3:15pm	CSI 1121

CMSC436 **Programming Handheld Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351; or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Restriction: Permission of CMNS-Computer Science department.

Fundamental principles and concepts that underlie the programming of handheld systems, such as mobile phones, personal digital assistants, and tablet computers. Particular emphasis will be placed on concepts such as limited display size, power, memory and CPU speed; and new input modalities, where handheld systems differ substantially from non-handheld systems, and thus require special programming tools and approaches. Students will apply these concepts and principles in the context of an existing handset programming platform.

0101	Adam Porter TuTh 12:30pm - 1:45pm	Seats (Total: 152) ESJ 1224

CMSC451 **Design and Analysis of Computer Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program.

Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include graph algorithms, basic algorithm design paradigms (such as greedy algorithms, divide-and-conquer, and dynamic programming), network flows, NP-completeness, and other selected topics in algorithms.

0101	Aravind Srinivasan TuTh 11:00am - 12:15pm	Seats (Total: 88) CSI 2117
0201	Laxman Dhulipala MW 2:00pm - 3:15pm	Seats (Total: 88) CSI 2117

CMSC454 **Algorithms for Data Science**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. Restriction: Permission of CMSC-Computer Science department. Credit only granted for: CMSC454 or CMSC498U. Formerly: CMSC498U.

Fundamental methods for processing a high volume of data. Methods include stream processing, locally sensitive hashing, web search methods, page rank computation, network and link analysis, dynamic graph algorithms as well as methods to handle high dimensional data/dimensionality reduction.

0101	Clyde Kruskal TuTh 3:30pm - 4:45pm	Seats (Total: 80) CSI 3117

CMSC456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor . Cross-listed with: MATH456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Nathan Manning MWF 10:00am - 10:50am	Seats (Total: 50) CSI 3117
0201	Daniel Gottesman TuTh 12:30pm - 1:45pm	Seats (Total: 95) IRB 0318

CMSC460 **Computational Methods**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH246. Cross-listed with: AMSC460. Credit only granted for: AMSC460, AMSC466, CMSC460, or CMSC466.

Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

0101	Stefan Doboszczak MWF 11:00am - 11:50am	Seats (Total: 32) PHY 2208
0201	Todd Rowland MWF 12:00pm - 12:50pm	Seats (Total: 28) CHM 2201
0301	Christopher Moakler TuTh 2:00pm - 3:15pm	Seats (Total: 28) MTH 0403
0401	Tobias von Petersdorff TuTh 12:30pm - 1:45pm	Seats (Total: 28) MTH B0421

CMSC466 **Introduction to Numerical Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (CMSC106, CMSC131); and minimum grade of C- in MATH410. Cross-listed with: AMSC466. Credit only granted for: AMSC460, CMSC460, AMSC466, or CMSC466.

Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

0101	Maria Cameron	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 0106

CMSC470 **Introduction to Natural Language Processing**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC320, CMSC330, and CMSC351; and 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Permission of CMNS-Computer Science department.

Introduction to fundamental techniques for automatically processing and generating natural language with computers. Machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of natural language. Application of these techniques in a series of assignments designed to address a core application such as question answering or machine translation.

0101	Marine Carpuat	Seats (Total: 80)
	MW 3:30pm - 4:45pm	CSI 2117

CMSC473 **Capstone in Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- or higher in CMSC421 or CMSC422. Recommended: Background or exposure to machine learning topics is strongly encouraged. Restriction: Permission of instructor and Permission of CMSC - Computer Science department. Credit only granted for: CMSC498P or CMSC473. Formerly: CMSC498P. Additional information: Students will be paired with project advisors from the UMD faculty or alternatively, an industry advisor. Students are encouraged to plan for projects results that can be published at academic conferences or will impact academic research.

Semester-long project course in which each student will identify and carry out a project related to machine learning, with the goal of publishing a research paper or software tool.

0101	Thomas Goldstein	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	CSI 3118

CMSC474 **Introduction to Computational Game Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CMSC351 and CMSC330; and permission of CMNS-Computer Science department. Or must be in the (Computer Science (Doctoral), Computer Science (Master's)) program. Credit only granted for: CMSC474, ECON414, GVPT390 or GVPT399A.

Game theory deals with interactions among agents (either human or computerized) whose objectives and preferences may differ from the objectives and preferences of the other agents. It will also provide a comprehensive introduction to game theory, concentrating on its computational aspects.

0101	Dana Nau	Seats (Total: 38)
	TuTh 3:30pm - 4:45pm	CSI 3118

CMSC475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340). And permission of CMNS-Computer Science department; or permission of CMNS-Mathematics department. Cross-listed with MATH475 .

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

Credit only granted for MATH475 or CMSC475.

0101	Wiseley Wong	Seats (Total: 32)
	MWF 2:00pm - 2:50pm	PHY 1204

CMSC488A **Special Topics in Computer Science; Quantum Boot Camp**

(Perm req)

Credits: 1 Grading Method: Regular

Seminar courses that allow students to pursue new and emerging areas of Computer Science.

Prerequisites: MATH141 and either MATH240 or PHYS274; or equivalent course work. Also offered as ENEE489F, PHYS499F, and CHPH499F. Credit only granted for PHYS499F, ENEE489F, CMSC488A, or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)
	M 2:00pm - 3:15pm	ATL 3100A

CMSC498A **Selected Topics in Computer Science**

(Perm req)

Credits: 1-3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Contact department for information to register for this course.

CMSC498I **Selected Topics in Computer Science; Real World Computer Security**

(Perm req)

Credits: 3 Grading Method: Regular

An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

Prerequisite: Minimum grade of C- in CMSC330 and CMSC351. This class will focus on applied cryptography and cryptocurrency in the context of real world security and privacy issues. It will cover secure messaging and deniability, anti abuse protocols, attacks on deployed cryptographic protocols, the basics of blockchains, privacy preserving payments, and smart contracts/defi.

0101	Ian Miers	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	IRB 1116

CMSC499A **Independent Undergraduate Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.

Contact department for information to register for this course.

CMSC614 **Computer and Network Security**

Credits: 3 Grading Method: Regular, Audit

Recommended: Knowledge of C programming. Restriction: Must be in the Computer Science Master's or Doctoral programs. Credit only granted for: CMSC818O or CMSC614. Formerly: CMSC818O.

Advanced topics in computer and network security, including: anonymity, privacy, memory safety, malware, denial of service attacks, trusted hardware, security design principles, and empirically measuring security "in the wild". This will be a largely paper-driven course (there is no textbook), preparing students for research in (or around) the broad area of security. Students will gain first-hand experience launching attacks in controlled environments. The bulk of the grade will be based on a final, semester-long group project.

0101	Dave Levin	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	CSI 3120

CMSC630 **Foundations of Software Verification**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC330; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Topics in program verification. Operational semantics of programs. Preconditions and postconditions. Axiomatic proof systems and predicate transformers. Temporal logic and model checking. Process algebra, semantic equivalences and algebraic reasoning.

0101	Rance Cleaveland	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	CSI 1121

CMSC631 **Program Analysis and Understanding**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC330; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Techniques for static analysis of source code and modern programming paradigms. Analysis techniques: data flow analysis, program dependence graphs, program slicing, abstract interpretation. The meaning of programs: denotational semantics, partial evaluation. Advanced treatment of abstraction mechanisms: polymorphic types, operation overloading, inheritance, object-oriented programming and ML-like programming languages.

0101	Leonidas Lampropoulos	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	CSI 2118

CMSC657 **Introduction to Quantum Information Processing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Familiarity with complex numbers and basic concepts in linear algebra (e.g., eigenvalues, eigenvectors, Hermitian and unitary matrices) is required. Credit only granted for: CMSC657 or CMSC858K. Formerly: CMSC858K. Additional information: Previous background in quantum mechanics or theory of computation is not required.

An introduction to the field of quantum information processing. Students will be prepared to pursue further study in quantum computing, quantum information theory, and related areas.

0101	Andrew Childs	Seats (Total: 65)
	TuTh 11:00am - 12:15pm	JMZ 0220

CMSC660 **Scientific Computing I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have suitable programming experience, such as in Matlab, Python, C or Fortran. Cross-listed with: AMSC660. Credit only granted for: AMSC660 or CMSC660.

Monte Carlo simulation, numerical linear algebra, nonlinear systems and continuation method, optimization, ordinary differential equations. Fundamental techniques in scientific computation with an introduction to the theory and software for each topic.

0101	Howard Elman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	CSI 2118

CMSC663 **Advanced Scientific Computing I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: AMSC660 or CMSC660; and (AMSC661 or CMSC661). Restriction: Permission of instructor. Cross-listed with: AMSC663. Credit only granted for: AMSC663 or CMSC663.

In the sequence Advanced Scientific Computing I & Advanced Scientific Computing II, (CMSC663/CMSC663 and AMSC664/CMSC664, respectively) students work on a year-long individual project to develop software for a scientific task in a high performance computing environment. Lectures will be given on available computational environments, code development, implementation of parallel algorithms.

0101	Tobias von Petersdorff, Abhinav Bhatele	Seats (Total: 20)
	TuTh 9:30am - 10:45am	HBK 0109

CMSC666 **Numerical Analysis I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC466 or AMSC466; and MATH410. Cross-listed with: AMSC666. Credit only granted for: AMSC666 or CMSC666.

Approximation theory, numerical solution of initial-value problems, iterative methods for linear systems, optimization.

Click here for more course information.

0101	Eitan Tadmor	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PHY 1219

CMSC673 **Capstone in Machine Learning**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C-in CMSC421 or CMSC422. Jointly offered with: CMSC473. Credit only granted for: CMSC673, CMSC798P, CMSC473, or CMSC498P. Formerly: CMSC798P.

Semester-long project course in which each student will identify and carry out a project related to machine learning, with the goal of publishing a research paper or software tool.

0101	Thomas Goldstein	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	CSI 3118

CMSC714 High Performance Computing Systems

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC411 and CMSC412; or permission of instructor.

Slected topics in high-performance systems, including contemporary architectures, interconnection topologies, shared memory and message-passing systems, multi-threaded kernels, latency avoidance and hiding techniques, methods for data and workload partitioning performance profiling, debugging.

0101	Alan Sussman	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	CSI 1122

CMSC715 Wireless and Mobile Systems for the IoT

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC417. Recommended: STAT100, MATH141, MATH240, and CMSC106; or equivalent courses. Credit only granted for: CMSC818W or CMSC715. Formerly: CMSC818W.

Research on the Internet of Things (IoT), from the perspective of wireless networking and mobile sensing. Various techniques, algorithms, and systems that leverage the sensors in smartphones, smartwatches, drones, and IoT devices, to deliver real-world applications

0101	Nirupam Roy	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	CSI 3120

CMSC723 Natural Language Processing

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: INST735, LING723. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Jordan Ying	Seats (Total: 80)
	MW 3:30pm - 4:45pm	IRB 0318

CMSC730 **Interactive Technologies in Human-Computer Interaction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Computer Science Master's or Doctoral program; or permission of instructor. Credit only granted for: CMSC838J or CMSC730. Formerly: CMSC838J.

Ubiquitous and mobile computing, wearables, virtual/augmented reality, natural user interfaces, tangible UIs, interactive fabrication.

0101	Huaishu Peng	Seats (Total: 40)
	MW 3:30pm - 4:45pm	IRB 2207

CMSC733 **Computer Processing of Pictorial Information**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC420.

Input, output, and storage of pictorial information. Pictures as information sources, efficient encoding, sampling, quantization, approximation. Position-invariant operations on pictures, digital and optical implementations, the pax language, applications to matched and spatial frequency filtering. Picture quality, image enhancement and image restoration. Picture properties and pictorial pattern recognition. Processing of complex pictures; figure extraction, properties of figures. Data structures for pictures description and manipulation; picture languages. Graphics systems for alphanumeric and other symbols, line drawings of two- and three-dimensional objects, cartoons and movies.

0101	Jia-Bin Huang	Seats (Total: 88)
	TuTh 12:30pm - 1:45pm	CSI 3117

CMSC734 **Information Visualization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC434; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Information visualization defined in relation to graphics, scientific visualization, databases, data mining, and human-computer interaction. Visualizations for dimensional, temporal, hierarchical and network data. Examines design alternatives, algorithms and data structures, coordinated views, and human factors evaluations of efficacy.

0101	Zhicheng Liu	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 2120

CMSC740 Advanced Computer Graphics

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH240 and CMSC420; or permission of instructor.

An introduction to the principles of computer graphics. Includes an introduction to graphics displays and systems, introduction to the mathematics of affine and projective transformations, perspective, curve and surface modeling, algorithms for hidden-surface removal, color models, methods for modeling illumination, shading, and reflection.

0101	Matthias Zwicker	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	CSI 1122

CMSC751 Parallel Algorithms

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC451; or ENEE641; or students who have taken courses with comparable content may contact the department. Cross-listed with: ENEE651. Credit only granted for: ENEE459P, ENEE651, ENEE759K or CMSC751. Formerly: ENEE759K.

A presentation of the theory of parallel computers and parallel processing. Models of parallel processing and the relationships between these models. Techniques for the design and analysis of efficient parallel algorithms including parallel prefix, searching, sorting, graph problems, and algebraic problems. Theoretical limits of parallelism.

0101	Uzi Vishkin	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 1104

CMSC756 Robotics

Credits: 3 Grading Method: Regular, Audit

Prerequisite: CMSC420, CMSC106, CMSC466, and MATH240; or equivalent. Restriction: Must be in the Computer Science Master's or Doctoral programs. Credit only granted for: CMSC818N or CMSC756. Formerly: CMSC818N.

Overview on fundamental components of robotic systems, including the sensing and actuation, control and modeling of motion and perception, dynamics and kinematics, motion planning and manipulation of robots.

Cross-listed with ENEE769M. Credit only granted for CMSC756 or ENEE769M.

0101	Dinesh Manocha	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	IRB 2107

CMSC798 **Master's Non-Thesis Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

CMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CMSC801 **Department Internal Research Seminar**

Credits: 1 Grading Method: Sat-Fail

Credit only granted for: CMSC798E or CMSC801. Formerly: CMSC798E.

Research overviews from faculty to help introduce departmental research to graduate students.

0101	David Van Horn	Seats (Total: 60)
	F 11:00am - 11:50am	IRB 0318

CMSC818X **Advanced Topics in Computer Systems; Introduction to Parallel Computing**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of computer systems to suit the interest and background of students.

Prerequisite: CMSC411 and CMSC412 or permission of instructor. Restricted to CMSC and AMSC students (MS or PhD). Introduction to parallel computing for computer science majors. Topics include programming for shared memory and distributed memory parallel architectures, and fundamental issues in design, development and analysis of parallel programs.

0101	Abhinav Bhatele	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	IRB 0318

CMSC828C **Advanced Topics in Information Processing; Statistical Pattern Recognition**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Behtash Babadi	Seats (Total: 90)
	MW 11:00am - 12:15pm	JMP 3201

CMSC828F **Advanced Topics in Information Processing; Computational Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

Cross-listed with NACS728W and LING849C. Credit only granted for LING849C, NACS728W, or CMSC828F. Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Naomi Feldman	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	MMH 1108B

CMSC828J **Advanced Topics in Information Processing; Common-sense Reasoning and Natural Language Understanding**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Rachel Rudinger	Seats (Total: 40)
	TuTh 9:30am - 10:45am	CSI 1121

CMSC828V **Advanced Topics in Information Processing; Numerical Methods for Data Science and Machine Learning**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Maria Cameron	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ITV 1100

CMSC828W **Advanced Topics in Information Processing; Foundations of Deep Learning**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

Restricted to Master's/Doctoral students in Computer Science, Electrical and Computer Engineering, Mathematics, or permission of instructor. In this course, we are going to explore empirically-relevant theoretical foundations of deep learning (DL). We will cover topics including DL optimization, DL generaliation, Neural Tangent Kernels, Deep Generative Models, DL Robustness, DL Interpretability, Domain Adaptation and Generalization, Self-Supervised Learning and Deep Reinforcement Learning.

0101	Soheil Feizi	Seats (Total: 80)
	TuTh 3:30pm - 4:45pm	IRB 0318

CMSC828X **Advanced Topics in Information Processing; Learning-based modeling, Simulation and Animation**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Ming Lin	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	CSI 2120

CMSC828Y **Advanced Topics in Information Processing; Unsupervised Learning**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of information processing to suit the interest and background of students.

0101	Joseph JaJa	Seats (Total: 35)
	MW 2:00pm - 3:15pm	AJC 2134

CMSC829A **Advanced Topics in Bioinformatics and Computational Biology; Algorithmic Evolutionary Biology**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of bioinformatics to suit the interest and background of students.

0101	Erin Molloy	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	IRB 2207

CMSC838K **Advanced Topics in Programming Languages; Behavior Change and Affective Computing**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

0101	Pablo Paredes	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm Class time/details on ELMs	CSI 1122 ONLINE

CMSC838X **Advanced Topics in Programming Languages; Personal Health Informatics & Visualization**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by faculty from the literature of programming languages to suit the interest and background of students.

Jointly offered with INST682. Credit only granted for INST682 or CMSC838 X.

IM01	Eun Kyoung Choe	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	HBK 0103

CMSC848B **Selected Topics in Information Processing; Computational Imaging**

Credits: 3 Grading Method: Regular, Audit

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

Cross-listed with ENEE739Z. Credit only granted for CMSC848B or ENEE739Z. Restriction: Must be in the Computer Science Master's or Doctoral programs, or permission of instructor.

0101	Christopher Metzler	Seats (Total: 40)
	MW 2:00pm - 3:15pm	CSI 1121

CMSC848C **Selected Topics in Information Processing; Human-AI Interaction**

Credits: 3 Grading Method: Regular, Audit

Selected topics by the faculty from the literature of information processing to suit the interest and background of students.

0101	Hal Daume	Seats (Total: 85)
	TuTh 3:30pm - 4:45pm	CSI 2117

CMSC858F **Advanced Topics in Theory of Computing; Algorithmic Lower Bounds: Fun with Hardness Proofs**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Mohammad Hajiaghayi TuTh 8:00am - 9:15am	Seats (Total: 40) CSI 1122

CMSC858O **Advanced Topics in Theory of Computing; The Foundation of End-to-End Quantum Applications**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics selected by the faculty from the literature of theory of computing to suit the interest and background of students.

0101	Xiaodi Wu TuTh 11:00am - 12:15pm	Seats (Total: 38) CSI 3118

CMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Advanced topics selected by the faculty from the literature of applications of computer science to suit the interest and background of students.

Contact department for information to register for this course.

CMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM Communication Fall 2022

COMM107 **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

Attendance on the first day of classes is mandatory.

0101	Siqiao Ao MWF 8:00am - 8:50am	Seats (Total: 19) SKN 0104
0201	Stephan Garnier MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1112

0301	Savreen Hundal MWF 8:00am - 8:50am	Seats (Total: 19) SKN 1115
0401	Jim Golden MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1176
1101	Siqiao Ao MWF 9:00am - 9:50am	Seats (Total: 19) SKN 0104
1201	Stephan Garnier MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1112
1301	Savreen Hundal MWF 9:00am - 9:50am	Seats (Total: 19) SKN 1115
1401	Daniel Foster MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1176
1501	Olivia Truban MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1180
2301	Daniel Foster MWF 10:00am - 10:50am	Seats (Total: 19) SKN 0104
2401	Jim Golden MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1112
2501	Jin Choi MWF 10:00am - 10:50am	Seats (Total: 19) SKN 1115
2601	Miriam Komuhendo MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1176
2701	Olivia Truban MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1180
2801	Crystal Stone MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1184
2901	Viktoriia Savchuk MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1172

3001	Emma Newton MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1164
3101	Savreen Hundal MWF 10:00am - 10:50am	Seats (Total: 19) KEY 0117
3301	Daniel Foster MWF 11:00am - 11:50am	Seats (Total: 19) SKN 0104
3401	Jim Golden MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1112
3501	Jin Choi MWF 11:00am - 11:50am	Seats (Total: 19) SKN 1115
3601	Miriam Komuhendo MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1176
3701	Mollie Kaufer MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1180
3801	Crystal Stone MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1184
3901	Viktoriia Savchuk MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1172
4001	Emma Newton MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1164
4101	Savreen Hundal MWF 11:00am - 11:50am	Seats (Total: 19) SYM 0209
4201	Yumin Yan MWF 11:00am - 11:50am	Seats (Total: 19) PLS 1146
4301	Daniel Foster MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 0104
4401	Jim Golden MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1112

4501	Rudy Kim MWF 1:00pm - 1:50pm	Seats (Total: 19) SKN 1115
4601	Taylor Hourigan MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1176
4801	Jonathan Leach MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1184
4901	Daniel Foster MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 0104
5001	Jim Golden MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1112
5101	Rudy Kim MWF 2:00pm - 2:50pm	Seats (Total: 19) SKN 1115
5601	Neha Kamran MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1158
5701	Xin Ma MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1164
5801	Elizabeth Phipps MW 2:00pm - 3:15pm	Seats (Total: 19) PLS 1168
6101	L Gordon MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
6201	Matthew Salzano MW 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
6301	Elizabeth Phipps MW 3:30pm - 4:45pm	Seats (Total: 19) SKN 1115
6401	Neha Kamran MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
6501	Xin Ma MW 3:30pm - 4:45pm	Seats (Total: 19) PLS 1180

6601	L Gordon MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1184
6701	Matthew Salzano MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
6801	Ayodeji Dapherede-Otusanya MW 5:00pm - 6:15pm	Seats (Total: 19) SKN 1115
6901	Julie Gowin MW 5:00pm - 6:15pm	Seats (Total: 19) PLS 1176
7301	Alexandra Grimm TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1112
7401	Jeonghyun Kim TuTh 8:00am - 9:15am	Seats (Total: 19) SKN 1115
7501	Kimberli Munoz TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1176
7601	Donia Galarowicz TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1180
7701	Jaclyn Bruner TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1184
7901	Janna Soeder TuTh 9:30am - 10:45am	Seats (Total: 19) TYD 0111
8001	Melissa Lucas TuTh 9:30am - 10:45am	Seats (Total: 19) KEY 0119
8101	Alexandra Grimm TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1112
8201	Jeonghyun Kim TuTh 9:30am - 10:45am	Seats (Total: 19) SKN 1115
8301	Kimberli Munoz TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1176

8401	Thomas McCloskey TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1180
8501	Daviana Fraser TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1184
8601	Donia Galarowicz TuTh 9:30am - 10:45am	Seats (Total: 19) CHE 2116
8701	Jeannette Iannacone TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1103
8801	Ran Ma TuTh 9:30am - 10:45am	Seats (Total: 19) LEF 1171
8901	Thomas McCloskey TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1112
9001	Alisa Hardy TuTh 11:00am - 12:15pm	Seats (Total: 19) SKN 1115
9101	Sabeen Sheikh TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1176
9201	Cassondra Pope TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1180
9301	Emily Dawson TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1184
9401	Faith Otchere TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1172
9501	Tong Lin TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1162
9601	Tatenda Mashanda TuTh 12:30pm - 1:45pm	Seats (Total: 19) SKN 1112
9701	Thomas McCloskey TuTh 12:30pm - 1:45pm	Seats (Total: 19) EDU 2101

9801	Sabeen Sheikh TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1176
9901	Xingman Wu TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1180
9902	Christopher Swift TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1184
9903	Emily Dawson TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1115
9904	Ran Ma TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1164
9905	Umisha Kc TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 0104
9906	Tatenda Mashanda TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1112
9907	Thomas McCloskey TuTh 2:00pm - 3:15pm	Seats (Total: 19) SKN 1115
9908	Faith Otchere TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1176
9909	Xingman Wu TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1180
9910	Christopher Swift TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1184
9911	Max Erdemandi TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 0104
9912	Aya Farhat TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1112
9913	Jeremy Grossman TuTh 3:30pm - 4:45pm	Seats (Total: 19) SKN 1115

9914	Ari Perez Montes TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1176
9916	Mollie Kaufer TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1184
9917	Cassondra Pope TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 0104
9918	Aya Farhat TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 1112
9919	Jeremy Grossman TuTh 5:00pm - 6:15pm	Seats (Total: 19) SKN 1115
9923	Jade Olson TuTh 2:00pm - 3:15pm	Seats (Total: 19) JMZ 0208
9924	Cassondra Pope TuTh 3:30pm - 4:45pm	Seats (Total: 19) JMZ 0208
FC01	Mollie Kaufer MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC02	Sue Sherburne TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) VMH 1107
FC03	Matthew Salzano TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) SYM 0200
FC04	Mollie Kaufer MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) PLS 1164
FC05	Paula Nadler MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0102

FC06	Ari Perez Montes TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ARC 1127

COMM107B **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

This class is designed for current or prospective Business Majors.

0101	Melissa Lucas TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 1103
0201	Christine Schaaf TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1172

COMM107C **Oral Communication: Principles and Practices**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285.

A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.

This class is designed for current or prospective STEM students.

0101	Cassondra Pope TuTh 8:00am - 9:15am	Seats (Total: 19) JMZ 1226
0201	Cassondra Pope TuTh 9:30am - 10:45am	Seats (Total: 19) SQH 1123

COMM130 **Professional Communication and Writing**

Credits: 1 Grading Method: Regular

Restriction: Must be in the Communication major.

Designed to enhance the clarity and grace of students' writing. Students will acquire knowledge of writing based on principles of style and grammar as well as argument and organizational structure across a diversity of professional writing contexts. Students will also engage in peer review of one another's writing.

0101	Fielding Montgomery F 11:00am - 11:50am	Seats (Total: 50) ONLINE
0201	Skye De Saint Felix, Shawn Parry-Giles F 12:00pm - 12:50pm	Seats (Total: 50) ONLINE
0301	Skye De Saint Felix F 1:00pm - 1:50pm	Seats (Total: 50) ONLINE

COMM200 **Critical Thinking and Speaking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130, OR THET285.

Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

Attendance on the first day of classes is mandatory.

0101	Megu Itoh TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1162
0201	Christopher Swift TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1162
0301	Christopher Swift TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1164
0401	Megu Itoh TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1164

COMM201 **Introduction to Public Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication major.

Basic concepts and principles of public relations. Roles in organizations and society; history; skills and practices of public relations; theories and models of effective and ethical public relations.

0101	Sun Young Lee MW 2:00pm - 3:15pm	Seats (Total: 60) ATL 2324

0201	Susan Simon TuTh 12:30pm - 1:45pm	Seats (Total: 30) SQH 1105	

COMM230 **Argumentation and Debate**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

Attendance on the first day of class is mandatory.

0101	Sean Rhodes TuTh 8:00am - 9:15am	Seats (Total: 24) ASY 3221	
0201	Sean Rhodes TuTh 9:30am - 10:45am	Seats (Total: 24) ASY 3221	

COMM250 **Introduction to Communication Inquiry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

Class meets in person for the first 3 weeks followed by asynchronous lectures until the last week of classes. All discussion sections will meet in person the entire semester.

0101	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) HJP 0226 ONLINE KNI 1105	Discussion
0103	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) HJP 0226 ONLINE KNI 1105	Discussion
0105	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) HJP 0226 ONLINE ARC 1105	Discussion

0106	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) HJP 0226 ONLINE ARC 1105	Discussion
0108	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 25) HJP 0226 ONLINE SQH 2120	Discussion
0109	Raphael Mazzone MW 11:00am - 11:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 25) HJP 0226 ONLINE SQH 2120	Discussion

COMM269B **Special Topics in Study Abroad II; Oral Communication for Leaders in the Business World**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269C **Special Topics in Study Abroad II; Designing Communication Campaigns**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269M **Special Topics in Study Abroad II; Media Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269P **Special Topics in Study Abroad II; Principles of Film and Media Production**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM269R **Special Topics in Study Abroad II; Introduction to Public Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

COMM288 **Communication Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the student with the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 20)
0601	Leah Waks Contact instructor or department for details.	Seats (Total: 20)

COMM298R **Selected Topics in Communication; Introduction to Public Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM301 **Rhetorical Theories**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130, COMM250; and one course from STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one course from COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM301 or COMM401.

Explores the idea of rhetoric, from antiquity to digitality. Rhetoric, as an art of moving bodies, is central to democratic self-governance: only through persuading each other can we develop a shared vision of a just and desirable future. This course tracks the genesis of rhetorical theory in the ancient world, 20th-century struggles against fascist rhetoric, and contemporary extensions of rhetoric in digital media ecologies.

0101	Trevor Parry-Giles MW 2:00pm - 3:15pm	Seats (Total: 60) ATL 1113

COMM302 **Communication Science Theories**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130, COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM302 or COMM402.

This class introduces students to the principles of theory construction and offers a critical overview of how communication theories can be applied to solving problems in diverse social contexts, including interpersonal, intercultural, organizational, health, and/or political issues. The ultimate goal of this course is to put students in an intellectual position to understand theories more logically and critically and use them appropriately and effectively in conducting academic research and addressing social issues.

0101	Jiyoun Kim MW 3:30pm - 4:45pm	Seats (Total: 60) ASY 2203
ESG1	Soyoung Bae MW 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 3206

COMM303 **Media Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200, or COMM230; and must have completed or be concurrently enrolled in COMM304. Restriction: Must be in the Communication major.

Provides students with an introduction to media theory from multiple perspectives. We will begin by understanding how the history of mediated communication has been connected to ideology and lived experiences. Through readings, discussions, and activities, you will understand how technical, historical, economic social, and political forces have helped shape media content and the media themselves. You should also become familiar with the debate over how much influence the media have over their audiences, and what types of influences are present. The course will introduce issues relevant to consideration of media and historically underrepresented and marginalized groups, as well as individual and societal functions of the media.

0101	Catherine Steele TuTh 9:30am - 10:45am	Seats (Total: 85) MMH 1400

COMM304 **Communication Research Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed the Communication gateway requirements (COMM250; and one of STAT100, BMGT230, EDMS451, CCJS200, PSYC200, or SOCY201; and one of COMM107, COMM200 or COMM230). Must have completed or be concurrently enrolled in COMM130. Restriction: Must be in the Communication program.

Explores the different research traditions in the Communication discipline. This "literacy" course will develop students' ability to locate and fully comprehend Communication research and to understand how that research is conducted, reported, analyzed, and critiqued in Communication literature.

0101	Kristjana Maddux TuTh 2:00pm - 3:15pm	Seats (Total: 120) MMH 1400
ESG1	Soyoung Bae MW 2:00pm - 3:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 3206

COMM305 Qualitative Communication Research Methods

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Introduces undergraduate students to the methods used in qualitative communication research. Topics covered in class include ethics, field research, reflexivity, data collection, and data analysis. Over the course of the semester, students will develop a research prospectus, engage in field research (interviews and observations), analyze qualitative data, and write/present their research.

0101	Sahar Khamis MW 5:00pm - 6:15pm	Seats (Total: 30) TYD 1114

COMM306 Rhetorical Methods in Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major.

Equips students with skills for conducting research using rhetorical-critical methods. Such methods are crucial for scholars studying all kinds of public rhetoric: speeches, popular culture, photojournalism, digital media, public monuments, laws, and more. They are also instrumental for citizens engaging with elected officials, other citizens, and democratic institutions, as well as professionals who seek to create and understand persuasive discourse. This course will equip you with critical interpretive skills important to your work as a scholar, citizen, and professional.

0101	Janna Soeder TuTh 12:30pm - 1:45pm	Seats (Total: 30) ARC 1103
0201	Janna Soeder TuTh 11:00am - 12:15pm	Seats (Total: 30) ASY 3207

COMM307 Quantitative Methods in Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM304. Restriction: Must be in the Communication major. Credit only granted for: COMM400 or COMM307. Formerly: COMM400.

Designed to introduce students to the basics of quantitative communication research methods. As such, it covers the basic principles of scientific inquiry, the process for generating research questions and hypotheses, the concept of variables, sampling methods, research designs, basics of data analyses, as well as ethics in scientific research. This course prepares students to become informed consumers of quantitative communication research.

0101	Xiaoli Nan TuTh 11:00am - 12:15pm	Seats (Total: 30) EGR 1104

COMM324 **Communication and Gender**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DSHU, DVUP

Explores how communication shapes constructions of gender, sex, sexuality and other identity markers. Topics include issues of oppression, identity, and power and social, political, and economic situations and examines how these issues impact our daily lives.

0101	Taylor Hourigan MW 3:30pm - 4:45pm	Seats (Total: 25) SKN 0104
0201	Taylor Hourigan MW 5:00pm - 6:15pm	Seats (Total: 25) SKN 0104
0301	Kalin Schultz TuTh 8:00am - 9:15am	Seats (Total: 25) SQH 1105
0401	Kalin Schultz TuTh 9:30am - 10:45am	Seats (Total: 25) SQH 1105

COMM330 **Argumentation and Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

0101	Carolyn Robbins MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0122
0201	Carolyn Robbins MW 3:30pm - 4:45pm	Seats (Total: 25) JMZ 0205

ESG1	Janna Soeder MW 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 3220

COMM331 **News Writing and Reporting for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM130 and COMM201. Restriction: Must be in Communication program; and (sophomore standing; or junior standing). Credit only granted for: JOUR201, COMM231, or COMM331. Formerly: COMM231.

Writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

0101	Vijaya Bohlmann MW 11:00am - 12:50pm	Seats (Total: 18) KEY 0126

COMM351 **Public Relations Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM331. Restriction: Must be in Communication program.

The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

0101	Vijaya Bohlmann MW 1:00pm - 2:15pm	Seats (Total: 18) SQH 1111
0201	Vijaya Bohlmann MW 2:30pm - 3:45pm	Seats (Total: 18) SQH 1111
0301	Steven Drake MW 4:00pm - 5:15pm	Seats (Total: 18) KEY 0126
0401	Steven Drake MW 5:30pm - 6:45pm	Seats (Total: 18) KEY 0126

COMM353 **New Media Writing for Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in COMM351. Restriction: Must be in Communication program. Credit only granted for: COMM352 or COMM353. Formerly: COMM352.

Students learn the uses and influence of new media on public relations practice and expand their ability to write using new and traditional media platforms and tools

0101	Drew Ashby-King TuTh 2:00pm - 3:15pm	Seats (Total: 18) KEY 0102
0201	Jeannette Iannacone TuTh 12:30pm - 1:45pm	Seats (Total: 18) KEY 0117

COMM360 The Rhetoric of Black America

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.

0101	Alisa Hardy TuTh 9:30am - 10:45am	Seats (Total: 25) SQH 1103
0201	Daviana Fraser TuTh 12:30pm - 1:45pm	Seats (Total: 25) HBK 1108

COMM370 Mediated Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM250. Restriction: Junior standing or higher.

Analysis and critique of structure, performance, content, effects, and future of mediated communication.

0101	Sahar Khamis MW 3:30pm - 4:45pm	Seats (Total: 30) TYD 2109
0201	Nick Joyce TuTh 5:00pm - 6:15pm	Seats (Total: 30) ARC 1103

COMM371 Communication and Digital Media

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

A basic introduction to communication in the digital age. Through class lectures, assignments and projects, students will learn to effectively use new media for the purpose of strategic message creation and management used in the field of communication. Students will apply the basics of visual layout skills and the principles of visual design to create messages using words and images.

0101	Jaclyn Bruner TuTh 11:00am - 12:15pm	Seats (Total: 30) ATL 1410
ESG1	Jaclyn Bruner MW 11:00am - 12:15pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3216

COMM372 **Communication, Meaning, and Digital Media**

Credits: 3 Grading Method: Regular

Restriction: Must be in Communication program.

An exploration of visual communication and meaning creation. A theoretical and practical application of communication concepts and techniques in the production of visual content.

Formerly COMM498J. Credit granted for COMM498J or COMM372.

ESG1	Adam Nixon M 5:00pm - 7:30pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3212

COMM373 **Communication and Digital Visual Narrative**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

Examination of the traditional style of visual communication, its practices and theoretical underpinnings juxtaposed against contemporary digital media aesthetics and techniques. Utilizing a variety of communication skills and new media tools, students will plan, write, shoot, edit, and upload digital visual narratives.

Formerly COMM498K. Credit granted for COMM498K or COMM373.

ESG1	Adam Nixon Tu 5:00pm - 7:30pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3212

COMM375 **Documentary Theory and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Communication program.

A historical and theoretical introduction to documentary films and videos. Students will explore the power of documentaries to address socially significant issues.

ESG1	Adam Nixon W 5:00pm - 7:30pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 25) BLD3 3212

COMM382 **Essentials of Intercultural Communication**

Credits: 3 Grading Method: Regular , D General Education: DVCC

Credit only granted for: COMM382 or COMM482.

Introduction of major theories and concepts of intercultural communication; examination of processes that make up cultural differences; and use of intercultural communication competence skills.

0101	Umisha Kc TuTh 12:30pm - 1:45pm	Seats (Total: 25) ASY 1213
0201	Nick Joyce TuTh 3:30pm - 4:45pm	Seats (Total: 30) ARC 1105
0301	Ari Perez Montes TuTh 5:00pm - 6:15pm	Seats (Total: 25) SQH 1121
ESG1	Ayodeji Dapherede-Otusanya TuTh 2:30pm - 3:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 2203

COMM385 **Influence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, SCIS

Credit only granted for: COMM385 or COMM498I (Spring 2014). Formerly: COMM498I (Spring 2014).

Explores contemporary theories of influence and their implications for communication practice. Topics include power and influence, logical theory, rhetorical theory, persuasion theory, framing theory, social influence theory, and propagation of influence in mediated social networks.

0101	Carina Zelaya TuTh 12:30pm - 1:45pm	Seats (Total: 30) KEY 0103

COMM386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of ARHU-Communication department. Restriction: Junior standing or higher; and must be in Communication program.

Supervised internship experience with communication professionals. Relation of academic training to professional experience.

0101	Julie Gowin Contact instructor or department for details.	Seats (Total: 75)
ESG1	Raimonda Nuredini Class time/details on ELMs *Restricted to COMM majors at Shady Grove.*	Seats (Total: 20) ONLINE

COMM388 **Communication Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Supervised professional-level practice in communication.

Contact department for information to register for this course.

COMM398 **Selected Topics in Communication**

(Perm req)

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398C **Selected Topics in Communication; Peer Consulting in Oral Communication**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Provides training in the principles and practice of peer consulting in the context of the Oral Communication Center in the Department of Communication. Students will apply and integrate the knowledge and skills acquired in their fundamental studies oral communications course with new training to help their peers become outstanding listeners and speakers. They will also engage in a group research project designed to extend knowledge in peer consulting best practices.

0101	Raphael Mazzone MW 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 20) SKN 2117

COMM398D **Selected Topics in Communication; Basic Graphic Design for Communication**

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Restricted to COMM majors only.

0101	Erich Sommerfeldt	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	PLS 1129

COMM398E **Selected Topics in Communication; Health Communication**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

0101	Ayodeji Dapherede-Otusanya	Seats (Total: 30)
	MW 3:30pm - 4:45pm	SYM 0215

COMM398F **Selected Topics in Communication; Web Graphics, Coding, and Site Design**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM398I **Deliberative Democracy**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHU, SCIS

Credit only granted for: HNUH238A, COMM398I (Fall 2022), or COMM296. Formerly: COMM398I.

How do we change our politics, save democracy, and move beyond the "us vs. them" culture that divides us? This course begins with the premise that how we talk to one another and debate controversial issues can promote the public good or erode it in irreparable ways. Students in each class session will put principles of public dialogue into practice as they learn deliberative theories and skills that can help save democracy. Class readings will turn to historical case studies to frame the most controversial political issues we face today.

A study in deliberation theory and practice with a focus on historical and contemporary political conflicts. This course will integrate lectures, readings, videos, mini-public deliberations, teamwork, and research.

0101	Shawn Parry-Giles	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	HJP 2242

COMM398K **Selected Topics in Communication; Communication and Strategic Message Design**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

ESG1	Ilse Genovese	Seats (Total: 25)
	MW 11:00am - 12:15pm	BLD3 3212
	Restricted to COMM majors at Shady Grove.	

COMM398N **Selected Topics in Communication; Communication and Digital Imaging**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

ESG1	Ilse Genovese	Seats (Total: 25)
	MW 2:00pm - 3:15pm	BLD3 3212
	Restricted to COMM majors at Shady Grove.	

COMM398O Selected Topics in Communication; Environmental Communication

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Environmental Communication explores the theory and practice of talking about the environment. Students will explore how environmental discourses construct and challenge our identities and relationships with other beings as part of multiple complex and interconnected systems. Topics covered include historical and contemporary rhetorics of environmentalism, scholarly thought on discourses of nature and culture, and efforts to relocate the "center" of environmental communication by privileging the perspectives and strategies of marginalized knowledges, practices, and voices.

0101	Jade Olson	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMP 2202

COMM398Q Selected Topics in Communication; Social Media Analytics

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

ESG1	Adam Nixon	Seats (Total: 30)
	Th 5:00pm - 7:30pm	BLD3 3225
	Restricted to COMM majors at Shady Grove.	

COMM398T Selected Topics in Communication; Digital Culture and Civic Life

Credits: 3 Grading Method: Regular, Pass-Fail

Topical study of contemporary issues in communication.

Restricted to COMM majors only. This course asks: what does it mean to participate in civic life in a digital age? Students will explore their role as participants in digital culture by critically engaging contemporary case studies alongside learning digital production skills. Topics like social media activism, algorithmic bias, and conspiracy theories will be paired with digital projects like video essays and Twitter bots.

ESG1	Jaclyn Bruner MW 9:30am - 10:45am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 2226

COMM398Z **Selected Topics in Communication; Media Ethics and Cultural Citizenship**

Credits: 3 Grading Method: Regular

Topical study of contemporary issues in communication.

Contact department for information to register for this course.

COMM399 **Honors Thesis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0601	Leah Waks Contact instructor or department for details.	Seats (Total: 10)
1001	Andrew Wolvin Contact instructor or department for details.	Seats (Total: 5)
3801	Dale Hample Contact instructor or department for details.	Seats (Total: 10)
4001	Xiaoli Nan Contact instructor or department for details.	Seats (Total: 10)
4801	Nick Joyce Contact instructor or department for details.	Seats (Total: 5)
4901	Lindsey Anderson Contact instructor or department for details.	Seats (Total: 5)
5101	Damien Pfister Contact instructor or department for details.	Seats (Total: 10)
5301	Kang Namkoong Contact instructor or department for details.	Seats (Total: 5)
5501	Catherine Steele Contact instructor or department for details.	Seats (Total: 5)

COMM419A **Special Topics in Health Communication; Health & Popular Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Covers a variety of topics of health communication. Blends theoretical concepts and practical concerns that impact upon health communication processes. This course covers a specific topic of health communication in greater depth and applies scholarly discoveries to real-world examples.

ESG1	Ayodeji Dapherede-Otusanya TuTh 12:30pm - 1:45pm *Restricted to COMM majors at Shady Grove.*	Seats (Total: 30) BLD3 2203
ESG2	Ayodeji Dapherede-Otusanya M 1:30pm - 2:45pm Class time/details on ELMs *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 40) ONLINE ONLINE

COMM419C **Special Topics in Health Communication; Health Communication Campaigns**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Covers a variety of topics of health communication. Blends theoretical concepts and practical concerns that impact upon health communication processes. This course covers a specific topic of health communication in greater depth and applies scholarly discoveries to real-world examples.

This course is restricted to Departmental Honors students only. Health Communication Campaigns deals with the design, implementation, and evaluation of health promotion and disease prevention (HPDP) programs. The primary goal of this course is to provide a better understanding of the role and importance of previous theory and research in HPDP campaigns. This course will have a special focus on the interplay between health campaign messages, mass communication channels, interpersonal communication, and social influence.

0101	Carina Zelaya TuTh 2:00pm - 3:15pm	Seats (Total: 15) KEY 0123

COMM425 **Negotiation and Conflict Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Role of communication in shaping negotiation and conflict processes and outcomes.

Restricted to COMM majors only.

0101	Lauren Edelstein TuTh 11:00am - 12:15pm	Seats (Total: 30) TWS 1310

COMM426 **Conflict Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: COMM425 and COMM250.

Role of communication in managing conflict processes.

This course is restricted to COMM majors only.

0101	Lauren Edelstein	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 1310

COMM427 Crisis Communication

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores theories and research related to communication before, during, and after a crisis. Students examine the fundamentals of organizational communication, crisis management, and strategic and crisis communication planning before examining case studies of a number of real-life crises: organizational crises, natural disasters, accidents, terrorism incidents, health crises, and major crises of credibility.

ESG1	Dionne Clemons	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	BLD3 3203
	Restricted to COMM majors at Shady Grove.	

COMM448C Special Topics in Public Relations; Public Relations and Corporate Social Responsibility

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Courses seek to examine historical and current communication management theories, literature and practices for the purposes of understanding the business environment in which public relations/communication management operates and applying the best of these theories and practices toward the management of the public relations/communications functions of an organization.

Restricted to COMM majors only. There is growing interest in business ethics and corporate social responsibility, but how a company can strategically be involved in CSR practices and communicate examine the following questions: What is CSR? What is the theoretical background relevant to CSR? What has previous research on CSR found? What are the dominant and/or ideal strategies and tactics for CSR? Without prescribing simple solutions, we will seek answers to these questions. The exploration is intended to be interactive, with the journey of exploration involving an analysis of CSR-related issues and case studies.

0101	Sun Young Lee	Seats (Total: 30)
	MW 3:30pm - 4:45pm	ATL 2428

COMM449F Special Topics in Digital Communication; Media Campaign Message Design

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only. In this project-based course, students will learn about media campaigns by topics and design campaigns using different media platforms.

0101	Soyoung Bae	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0125

COMM449L **Special Topics in Digital Communication; Media Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores the topics that have arisen around computers, digital technologies, the internet, big data, surveillance capitalism, and network infrastructures.

Restriction: Restricted to COMM majors only.

0101	Dionne Clemons	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 1132

COMM460 **Public Life in American Communities, 1634-1900**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Ways that Americans have used their voice to create public life. Focus is on the diverse social communities that have characterized American life and the place and characteristics of oral discourse in each.

0101	Carly Woods	Seats (Total: 30)
	MW 2:00pm - 3:15pm	HBK 1112

COMM462 **Visual Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: COMM462 or COMM498V. Formerly: COMM498V.

The study of visual communication should change the way one sees the world. Students will observe, analyze, and critique visual images. The ascendance of images in our contemporary world will be demonstrated, methods for critically comprehending how images do persuasive work will be identified, and students will develop a vocabulary for critiquing images, and assist students in creating compelling images.

0101	Janna Soeder	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	SQH 1105

COMM475 **Persuasion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Bases of persuasion, with emphasis on recent experimental developments in persuasion.

This course is restricted to COMM majors only.

0101	Soyoung Bae TuTh 12:30pm - 1:45pm	Seats (Total: 30) ASY 3211

COMM476 **Language, Communication, and Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Communication major.

Communication as symbolic action through the study of communication ethics. Emerging ethical principles and decision-making in public discourse, interpersonal communication, organizational communication, public relations, health communication, and crisis communication.

Retricted to COMM majors only.

0101	Brooke Liu TuTh 2:00pm - 3:15pm	Seats (Total: 30) SQH 1121
0201	Erich Sommerfeldt TuTh 3:30pm - 4:45pm	Seats (Total: 30) SQH 1103

COMM483 **Senior Seminar in Public Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: COMM351; and 1 course from (COMM305, COMM306, COMM307, or COMM400). Additional information: Students who enrolled after Fall 2020 should not take COMM400 as a prerequisite.

Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

0101	Susan Simon TuTh 9:30am - 10:45am	Seats (Total: 20) PLS 1146

COMM488I **Communication Portfolio Project; Strategic Interviewing for the Career You Want**

Credits: 1 Grading Method: Regular

Preparation of the professional communication portfolio.

This course introduces students to advanced techniques in interviewing for job opportunities and career progression. This online course focuses on the dynamics of the interview process, the communication theories and best practices behind influence and persuasion, and the communication aptitudes and skills that distinguish top candidates.

0101	Drew Ashby-King	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

COMM489 **Topical Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Individualized research projects conducted with a faculty sponsor.

Contact department for information to register for this course.

COMM498J **Seminar; Strategic Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

This course presents a system of strategies that underlie communication. It is a practice-based framework with definitions, conditions, risks and rewards that inform the moves and motives of influence professionals. Through a series of interactive lectures, landmark writings, group exercises and classroom simulations, students will learn to decode, defend, apply and ethically manage the ever-present plays of dynamic, media-driven markets.

0101	Dionne Clemons	Seats (Total: 30)
	TuTh 5:00pm - 6:15pm	TYD 1114
ESG1	Dionne Clemons	Seats (Total: 30)
	TuTh 9:30am - 10:45am	BLD3 3203
	Restricted to COMM majors at Shady Grove.	

COMM498M **Seminar; War and Peace in Israeli Discourse 1967 to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

Cross-listing with ISRL448M. Credit only granted for ISRL448M or COMM498M. This course examines two oppositional discourses in Israel: 1) war discourse, which utilizes various discursive strategies, such as metaphors, lexical choices, and euphemisms, to routinize war; 2) peace discourse: which utilizes conciliatory speech acts, equivocation in diplomatic discourse, recognition discourse, and separation and engagement discourses. We will explore how war and peace discourses impact social consciousness in Israel.

0101	Elie Friedman	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

COMM498R **Seminar; Risk Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Present-day communication research.

0101	Jiyoun Kim	Seats (Total: 30)
	MW 2:00pm - 3:15pm	SQH 1105

COMM610 **Introduction to Translation and Interpreting Studies**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Students must complete an admissions test for first year courses; and permission of ARHU-Communication department.

Provides an overview of the interdisciplinary fields of Translation and Interpreting Studies and establishes relationships between scholarly study and professional practice. Examines how theories and concepts inform practice, guide to a higher level of competence, and address issues of interlingual, intercultural mediation in authentic, real-world settings both past and present. serves as a foundation course for reflective practice and portfolio work through action research methodology and process

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

Click here for program information.

PG01	David Sawyer	Seats (Total: 16)
	M 5:30pm - 8:30pm	SKN 3118

COMM619 **Consecutive Interpretation**

Credits: 2 Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Yana Carver, Shawn Parry-Giles Contact instructor or department for details.	Seats (Total: 16)

COMM619B **Consecutive Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit

Builds upon the systematic, reflective approach to interpreting in real-world settings introduced in Fundamentals of Interpreting. Consecutive interpreting skills are consolidated through individual and group practice, and any remaining challenges related to consecutive interpreting sub-skills are identified and addressed. Stresses effective analysis, note-taking, and use of voice during exercises in sight translation, dialogue, and formal consecutive interpreting.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	Ihab Ali F 5:00pm - 6:15pm Class time/details on ELMs *Arabic into English.*	Seats (Total: 16) SKN 3117 ONLINE
XGE1	Ihab Ali F 6:15pm - 7:15pm Class time/details on ELMs *English into Arabic.*	Seats (Total: 16) SKN 3117 ONLINE

COMM629 **Introduction to Simultaneous Interpretation**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Shawn Parry-Giles, Yana Carver Contact instructor or department for details.	Seats (Total: 16)

COMM629F **Introduction to Simultaneous Interpretation; French into English/English into French**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds upon the overview of the simultaneous mode in Fundamentals of Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth. Challenges of simultaneous interpreting, including split attention, ear-voice span, and voice and microphone technique are addressed. Participants become familiar with the booth and exercises required to build simultaneous skills. Role and use of portable equipment in professional settings are discussed. Recommended as preparation for the M.A. entrance examination.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Pascale Kraus W 5:30pm - 6:30pm *English into French*	Seats (Total: 16) SKN 3118
XGF1	Rosalinda Meza-Steel Sa 11:30am - 1:30pm *French into English. Start Date: 9-10.*	Seats (Total: 16) SKN 3118

COMM630 Seminar in Public Relations Management

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: COMM630 or JOUR630. Formerly: JOUR630.

Relationship of public relations management to organizational structure and communication functions. Objectives, planning, staffing, budgeting, administering, and evaluation of public relations programs.

0101	Brooke Liu Tu 3:30pm - 6:30pm	Seats (Total: 15) SKN 3117

COMM659 Translation for Language-Specific Markets

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Shawn Parry-Giles, Yana Carver Contact instructor or department for details.	Seats (Total: 30)

COMM659A **Translation for Language-Specific Markets; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	Ihab Ali Tu 5:00pm - 6:15pm Class time/details on ELMs *Arabic into English*	Seats (Total: 16) SKN 3118 ONLINE
XGE1	Ihab Ali Tu 6:15pm - 7:15pm Class time/details on ELMs *English into Arabic*	Seats (Total: 16) SKN 3118 ONLINE

COMM659C **Translation for Language-Specific Markets; French into English/English into French**

Credits: 1

Grading Method: Regular,
Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Brigitte Andreassier Class time/details on ELMs *English into French*	Seats (Total: 16) ONLINE

XGF1	Pascale Kraus W 3:30pm - 4:30pm Class time/details on ELMs *French into English*	Seats (Total: 16) SKN 3118 ONLINE

COMM659G **Translation for Language-Specific Markets; Spanish into English/English into Spanish**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds translation skills to a highly professional level by developing autonomy in completing authentic, real-world translation projects based upon the reflective approach developed in the first-year curriculum. Develops one or more specializations. Completion of individual and group projects covering all aspects of professional translation from subject matter research, terminology work, and use of computer-assisted translation tools. Sight translation and timed exercises to increase production and meet deadlines.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Eva Vilarrubi W 4:00pm - 5:15pm Class time/details on ELMs *English into Spanish*	Seats (Total: 11) KEY 0124 ONLINE
XGS1	Joseph Mazza Tu 7:00pm - 8:50pm Class time/details on ELMs *Spanish into English*	Seats (Total: 16) ONLINE ONLINE

COMM661 **Communication and Social Change**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Place of rhetoric as the union of the moral and historical in moments of social definition. Reviews theories of discourse in social change including political change, social movements, consciousness change, and more global change. Application to contemporary change.

0101	Carly Woods M 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM669 **Professional Practice Forum in Translation: Practicum**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Provides opportunities to complete real-world translation projects on campus and in the public service, legal, business, and political communities as translators, project managers and translators/reviewers working on group projects. Collaboration with participants in the interpreting practicum is also sought to prepare multilingual texts for practicum events and familiarize participants with conference translation. Complements Translation for Specific Markets, and practicum projects are included in course and career reflective practice portfolios. Requires independent study plan agreed with course instructor.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PDG1	Shawn Parry-Giles	Seats (Total: 30)
	W 12:00pm - 1:15pm	ONLINE

COMM679 **Professional Practice Forum in Translation: Workplace Processes and Procedures; Workplace Processing and Procedures Translation**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Provides in-depth exploration of processes and procedures in public service, legal, and political settings requiring translation services. Prepares for translation in real-world settings by discussing procedures across sectors and institutions, enabling informed career plans and choices. Discusses ethics, professional conduct and business practices. Reinforces identity as a professional translator, develops specializations, and pursues professional and career development opportunities through interaction with members of the profession, professional organizations, and institutions in the language industry.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Stephen Lank, Elisabetta Ullmann	Seats (Total: 30)
	W 10:00am - 11:15am	SKN 3117

COMM686 **Teaching Communication**

Credits: 1 Grading Method: Regular, Audit

Formerly: SPCH686.

Principles of effective teaching--content and process--in the college communication classroom.

0101	Lindsey Anderson	Seats (Total: 30)
	W 12:00pm - 1:00pm Class time/details on ELMs	SKN 3118 ONLINE
	Alternating face-to-face/online class meeting. Please see instructor fo details.	

COMM688 **Communication Field Experience**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Applications of communication principles and research in professional communication settings.

Contact department for information to register for this course.

COMM698 **Special Problems in Communication**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

COMM698B **Special Problems in Communication; Colloquium in Communication**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

0101	Kang Namkoong	Seats (Total: 30)
	F 12:30pm - 2:00pm	HBK 1108

COMM698M **Special Problems in Communication; Colloquium in Digital Studies**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with COMM698M. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele	Seats (Total: 25)
	F 3:00pm - 5:00pm	SKN 3115

COMM700 **Introduction to Graduate Study in Communication**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Communication (Doctoral) program. Formerly: SPCH700.

Basic skills in communication research.

0101	Anita Seate	Seats (Total: 30)
	Th 3:30pm - 6:30pm	SKN 2127

COMM708 **Professional Communication: Rhetoric and Context**

Credits: 3 Grading Method: Regular, Sat-Fail

A skills-based course in speaking and writing in English for professional communicators adapting to a diversity of contexts, including business, health, law, politics, and science. Focus on diversifying the different contexts in which speaking and writing take place. Designed to develop an ability to adapt messages to a diversity of professional communication contexts, address the role of culture in adapting messages to a diversity of professional communication contexts, hone English speaking and writing skills based on a diversity of language registers, gain experience working with technical vocabulary, enhance analytical skills, strengthen research skills, enhance critical thinking skills, develop software technology skills.

PG01	Mollie Kaufer	Seats (Total: 16)
	Class time/details on ELMs	ONLINE

COMM711 **Historical/Critical Methods in Communication Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: COMM700; or permission of instructor. Formerly: SPCH711.

Methods for historical and critical research in communication. Formulation of significant research questions, systematic collection of bibliographic and phenomenal information, formulating substantial claims, organizing and writing research for disciplinary outlets.

0101	Kristjana Maddux	Seats (Total: 15)
	Tu 6:30pm - 9:30pm	VMH 1107

COMM713 **Translation Technology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Admissions test for second year courses; and permission of ARHU-Communication department.

Builds upon the principles outlined in Introduction to Computer-Assisted Translation to develop comprehensive knowledge of the current and future roles of technology in translation processes involving both the spoken and the written word, including use of widely available software tools and systems for terminology management, translation memory, and machine translation. Students carry out projects using translation technology, enabling them to apply newly acquired knowledge in applied contexts. Examination of case studies highlights how translation technology is leveraged across public and private sector organizations and the latest developments in the field.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

Click here for more course information.

PG01	Jon Ritzdorf	Seats (Total: 30)
	Th 4:00pm - 8:30pm	SKN 3117
	10 sessions total.	

COMM715 **Advanced Qualitative Methods in Communication Research**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced data analysis of qualitative data in Communication research. In-field research and techniques for analysis of data from in-field work.

0101	Lindsey Anderson W 1:00pm - 4:00pm	Seats (Total: 15) SKN 2127

COMM719 **Advanced Consecutive Interpretation**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Shawn Parry-Giles, Yana Carver Contact instructor or department for details.	Seats (Total: 30)

COMM719A **Advanced Consecutive Interpretation; Arabic into English/English into Arabic**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGA1	John Samaha Jr Class time/details on ELMs Class time/details on ELMs *Arabic into English*	Seats (Total: 16) ONLINE ONLINE
XGE1	Nina Behrens W 6:00pm - 8:15pm Class time/details on ELMs *English into Arabic. Biweekly. Start TBA.*	Seats (Total: 16) SKN 3117 ONLINE

COMM719C **Advanced Consecutive Interpretation; French into English/English into French**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Builds consecutive interpreting skills to a highly professional level by sharpening listening, processing, memory, note-taking, and delivery skills, enabling interpretation of highly complex material requiring particular attention to nuance, tone, and style. Includes dialogue and monologue interpreting exercises with specialized subject material. Participants emerge from the course as reflective practitioners with the simultaneous interpreting skills required to perform competently in real-world settings.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Pascale Kraus W 4:30pm - 5:30pm Class time/details on ELMs *English into French*	Seats (Total: 16) SKN 3118 ONLINE
XGF1	Rosalinda Meza-Steel Sa 9:00am - 11:15am Class time/details on ELMs *French into English. Biweekly. Start Date: 9-10.*	Seats (Total: 16) SKN 3118 ONLINE

COMM729 **Simultaneous Interpretation**

Credits: 2-3 Grading Method: Regular, Audit, Sat-Fail

Builds upon the discussion of the simultaneous mode and exercises in Introduction to Simultaneous Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth in a series of progressive exercises. Addresses challenges such as coordination of split attention, ear-voice span, memory and delivery / presentation. Reinforces principles of collegial teamwork and good microphone technique in the booth. Enhances preparation skills required for interpretation of specialized subject matter.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Shawn Parry-Giles, Yana Carver Contact instructor or department for details.	Seats (Total: 16)

COMM729C **Simultaneous Interpretation; French into English/English into French**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Builds upon the discussion of the simultaneous mode and exercises in Introduction to Simultaneous Interpreting by reviewing the relationship between consecutive and simultaneous skills and introducing work in the booth in a series of progressive exercises. Addresses challenges such as coordination of split attention, ear-voice span, memory and delivery / presentation. Reinforces principles of collegial teamwork and good microphone technique in the booth. Enhances preparation skills required for interpretation of specialized subject matter.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

XGE1	Pascale Kraus W 5:30pm - 6:30pm *English into French.*	Seats (Total: 16) SKN 3118
XGF1	Rosalinda Meza-Steel Sa 11:30am - 1:30pm *French into English. Biweekly. Start Date: 9-10.*	Seats (Total: 16) SKN 3118

COMM738E **Seminar in Mediated Communication; Emerging Media Studies/Health**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The examination of special topics related to the study of mediated communication.

This course is designed to provide an in-depth understanding of emerging media technologies and their roles in the field of health communication. We will review key theoretical concepts and methodological approaches employed in emerging media and health communication research and discuss the practical applications of the theories and methodologies.

0101	Kang Namkoong Tu 3:30pm - 6:30pm	Seats (Total: 15) SKN 2127

COMM759 **Professional Practice Forum in Interpreting: Practicum**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Provides opportunities to interpret consecutively and simultaneously in real-world settings on campus and in the public service, legal, business, and political communities. Develops team leader skills by organizing and convening an event or series of events (conference, debate, or negotiation), selecting topics and delegates, and preparing speeches and arguments to deliver and interpret. Collaboration with participants in M.A. translation courses is sought. Requires independent study plan agreed with course instructor.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PDG1	Shawn Parry-Giles W 12:00pm - 1:15pm	Seats (Total: 30) ONLINE

COMM769 **Professional Practice Forum in Interpreting: Workplace Processes and Procedures; Workplace Processes and Procedures Interpreting**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Provides in-depth exploration of processes and procedures in public service, legal, and political settings where interpreting services are commonplace. Enables students to make informed career plans and choices. Empowers participants by helping to establish and reinforce identity as a professional interpreter, develop specializations, and pursue professional and career development opportunities through interaction with members of the profession, professional organizations, and institutions in the language industry.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Elisabetta Ullmann, Stephen Lank W 10:00am - 11:15am	Seats (Total: 30) SKN 3117

COMM789 **Seminar: Special Topics in Intercultural Communication; Advanced Intercultural Communications/Negotiations**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Explores special topic areas within the study of intercultural communication, such as culture and conflict, intercultural negotiation, cross-cultural relationships.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Raphael Mazzone M 2:00pm - 5:15pm	Seats (Total: 30) SKN 3118

COMM798 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

An individual course designed for intensive study or research of problems in communication.

Contact department for information to register for this course.

COMM798B **Independent Study; Text Analysis and Intensive Writing**

Credits: 1-2 Grading Method: Regular, Audit

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG03	Ahmed Hanafy W 3:30pm - 5:30pm *Arabic.*	Seats (Total: 16) SKN 3117

COMM798D **Independent Study; Introduction to Localization**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Jon Ritzdorf	Seats (Total: 16)
	F 9:00am - 1:30pm	SKN 3117

COMM798F **Independent Study; English Fluency Enhancement**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Mollie Kaufer	Seats (Total: 16)
	Contact instructor or department for details.	

COMM798I **Independent Study; Consecutive Interpreting Skills**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

An individual course designed for intensive study or research of problems in communication.

Must be in Graduate Studies in Interpreting and Translation. All other graduate students must request permission. Contact oes@umd.edu.

PG01	Rosalinda Meza-Steel, Pascale Kraus	Seats (Total: 16)
	W 5:30pm - 6:30pm	SKN 3118
	English into French.	

COMM799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

COMM888 **Doctoral Practicum in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit

Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

COMM889 **Doctoral Tutorial in Communication**

(Perm req)

Credits: 3-9 Grading Method: Regular, Audit

Individual research in communication.

Contact department for information to register for this course.

COMM898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

COMM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

CPBE College Park Scholars-Business, Society, and Economy Fall 2022

CPBE100 **College Park Scholars: Business, Society & the Economy First-Year Colloquium**

Credits: 1 Grading Method: Regular

Restriction: Students must be matriculated into the College Park Scholars Business, Society & the Economy (CPBE) program.

Introductory colloquium: Examination of issues related to business, society and the economy.

0101	Oliver Schlake, Claudia Donnelly	Seats (Total: 45)	
	M 5:00pm - 5:50pm	ESJ 1202	
	M 6:00pm - 6:50pm	ESJ 1202	Lab
0201	Oliver Schlake, Claudia Donnelly	Seats (Total: 45)	
	M 5:00pm - 5:50pm	ESJ 1202	
	M 6:00pm - 6:50pm	ESJ 1202	Lab

CPBE225 **Enterprise Communications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Prerequisite: CPBE100. Restriction: Must be enrolled in College Park Scholars' Business, Society and the Economy (CPBE) program. Formerly: CPSP220.

Examines basic interpersonal communication processes within written and oral channels, with practical applications for the business environment.

0101	Ira Koretsky	Seats (Total: 38)	
	MW 11:00am - 12:15pm	KEY 0103	
	W 5:00pm - 6:50pm	PLS 1140	Lab

0102	Ira Koretsky	Seats (Total: 38)	
	MW 9:30am - 10:45am W 5:00pm - 6:50pm	KEY 0103 PLS 1140	Lab

CPET College Park Scholars-Environment, Technology & Economy Fall 2022

CPET100 **College Park Scholars: Environment, Technology & Economy First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Introductory colloquium: Examination of issues related to the convergence of the environment, technology and the economy.

Class will meet in lecture OR discussion each week. For the first class meeting, both sections meet in LECTURE. Students will then be given schedule for semester.

0101	Edward Sinnes, Tim Knight	Seats (Total: 96)
	Th 5:10pm - 6:30pm	CCC 1100

CPET200 **College Park Scholars: Environment, Technology & Economy Second-Year Colloquium**

Credits: 1 Grading Method: Regular

Prerequisite: CPET101. Restriction: Students must be enrolled in the College Park Scholars Environment, Technology & Economy (CPET) program.

Advanced colloquium: Continued examination of issues related to sustainable development.

0101	Tim Knight, Edward Sinnes	Seats (Total: 96)
	W 5:10pm - 6:30pm	CCC 1100

CPGH College Park Scholars-Global Public Health Fall 2022

CPGH100 **College Park Scholars: Global Public Health First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Introductory colloquium: Examination of factors that determine the health status of populations around the world.

0101	Becky Shasha, Janay Johnson	Seats (Total: 96)
	M 5:00pm - 6:15pm	CCC 1205

CPGH200 **College Park Scholars: Global Public Health Second-Year Colloquium**

Credits: 1 Grading Method: Regular General Education: DSSP

Prerequisite: CPGH101. Restriction: Students must be enrolled in the College Park Scholars Global Public Health (CPGH) program.

Building on knowledge and skills gained from the first-year colloquia, students will develop public health interventions that address a public health issue of a particular community.

0101	Janay Johnson, Becky Shasha	Seats (Total: 95)
	W 2:00pm - 3:15pm	CCC 1100

CPJT College Park Scholars-Justice and Legal Thought Fall 2022

CPJT100 **College Park Scholars: Justice & Legal Thought: First-Year Colloquium**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Justice & Legal Thought (CPJT) program.

Students will gain an experiential understanding of law and justice by investigating concepts and frameworks of justice and apply them to real-world experience.

0101	Justine DeCamillis	Seats (Total: 90)
	W 5:00pm - 6:15pm	CCC 1205

CPJT200 **Justice and legal Thought Second Year Colloquium**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Justice and Legal Thought (CPJT) program. Additional information: When combined with the first year CPJT colloquia, students will learn how to research issues discussed and debated throughout year one.

Advanced colloquium for second year students related to research skill development

0101	Justine DeCamillis	Seats (Total: 90)
	Tu 5:00pm - 6:00pm	CCC 1205

CPMS College Park Scholars-Media, Self and Society Fall 2022

CPMS100 **College Park Scholars: Media, Self & Society First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Introductory colloquium: Examination of issues related to the media.

0101	Alison Burns, Kelly Brower Th 3:30pm - 4:45pm	Seats (Total: 90) CCC 1100

CPMS225 **Analyzing Media Practice through Theory**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Prerequisite: CPMS100. Restriction: Must be in the Scholars Media, Self & Society Program. Formerly: CPSP222.

Media analysis investigating patterns of ownership, the working of media organizations, patterns of coverage and the nature of audiences.

0101	Alison Burns, Laura Cleary, Dinfin Mulupi, Kelly Brower TuTh 12:30pm - 1:45pm	Seats (Total: 90) TWS 0310

CPMS230 **College Park Scholars: Media, Self & Society - Internship Practicum**

Credits: 1-3 | Grading Method: Regular

Prerequisite: CPMS101. Restriction: Students must be enrolled in the College Park Scholars Media, Self & Society (CPMS) program.

Supervised internship project in an area related to media, self and society.

0101	Alison Burns, Kelly Brower Contact instructor or department for details.	Seats (Total: 25)

CPPL College Park Scholars-Public Leadership Fall 2022

CPPL100 **College Park Scholars: Public Leadership First-Year Colloquium I**

Credits: 1 | Grading Method: Regular | General Education: DVCC

Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Introductory colloquium: Examination of issues related to public leadership.

0101	Kelly Brower, Susannah Washburn W 5:00pm - 5:50pm	Seats (Total: 45) CCC 1111

0201	Kelly Brower, Susannah Washburn W 6:00pm - 6:50pm	Seats (Total: 45) CCC 1111

CPPL200 **College Park Scholars: Public Leadership - Applied Leadership Capstone I**

Credits: 1 Grading Method: Regular

Prerequisite: CPPL101. Restriction: Students must be enrolled in the College Park Scholars Public Leadership (CPPL) program.

Planning and initiation of team, community-based-learning projects.

Alternating face-to-face/online meeting. See instructor for details.

0101	Mathew Feehan W 6:00pm - 7:15pm	Seats (Total: 70) ESJ 1202

CPSA College Park Scholars-Arts Fall 2022

CPSA100 **College Park Scholars: Arts First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program.

Introductory colloquium: Aesthetic, intellectual and personal examination of the arts.

0101	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg M 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 25) CCC 1100
0102	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg M 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 25) CCC 1100
0103	Gabrielle Robinson-Tillenburg, Heather-Erin Bremenstuhl, Harold Burgess M 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 25) CCC 1100

CPSA149 **College Park Scholars: Arts Service-Learning Outreach**

Credits: 2 Grading Method: Regular

Service-Learning outreach to Prince George's County schools and non-profit agencies.

0101	Harold Burgess Th 5:00pm - 7:00pm	Seats (Total: 10) CCC 1115

CPSA200 **College Park Scholars: Arts Second-Year Colloquium I**

Credits: 1 Grading Method: Regular

Prerequisite: CPSA101. Restriction: Students must be matriculated into the College Park Scholars Arts (CPSA) program. Additional information: When paired with successful completion of CPSA 240, 250 or 260, students will earn General Education Scholarship-in-Practice credit.

Advanced colloquium I: Examination of the arts in society; and preparation for "Scholarship-in-Practice" project.

0101	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg Tu 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 22) CCC 1100
0102	Heather-Erin Bremenstuhl, Harold Burgess, Gabrielle Robinson-Tillenburg Tu 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 22) CCC 1100
0103	Gabrielle Robinson-Tillenburg, Heather-Erin Bremenstuhl, Harold Burgess Tu 6:00pm - 7:15pm Contact instructor or department for details.	Seats (Total: 22) CCC 1100

CPSD College Park Scholars-Science, Discovery & the Universe Fall 2022

CPSD200 **College Park Scholars: Science, Discovery & the Universe Second-Year Colloquium**

Credits: 1 Grading Method: Regular

Prerequisite: CPSD100 and CPSD101. Restriction: Students must be enrolled in the College Park Scholars Science, Discovery & the Universe (CPSD) program.

Advanced colloquium: Continued examination of issues related to science, discovery and the universe.

0101	Erin Thomson Th 3:30pm - 4:30pm	Seats (Total: 85) CCC 1205

CPSF College Park Scholars-Life Sciences Fall 2022

CPSF100 **College Park Scholars: Life Sciences First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Life Sciences (CPSF) program.

Introductory colloquium: Examination of issues related to the life sciences.

0101	Beth Parent, Candace Leverette	Seats (Total: 96)
	W 3:30pm - 5:00pm	TWS 0310

CPSF200 **College Park Scholars: Life Sciences Second-Year Colloquium**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CPSF101. Restriction: Must be in the College Park Scholars Life Sciences program. Credit only granted for: CPSF200 or CPSP218L. Formerly: CPSP218L.

This course is the final of a three-semester sequence within the College Park Scholars- Life Sciences Program. In the first semester, our content focused on community; we built community as a program of unique individuals to create a common identity and discussed the ways in which the science community exists. The second semester allowed us to explore the life sciences through our lenses of curiosity; we asked big questions and moved toward big answers. This semester is focused on engagement. We will take time to be fully present in the life sciences community and learn why it is important to gain practical knowledge and experiences to further the goals and aims of science.

0101	Beth Parent, Candace Leverette	Seats (Total: 90)
	W 3:30pm - 5:00pm	Location: TBA

CPSG College Park Scholars-Science and Global Change — Fall 2022

CPSG100 **College Park Scholars: Science & Global Change First-Year Colloquium I**

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Introductory colloquium: Examination of issues related to science and global change.

0101	John Merck, Thomas Holtz	Seats (Total: 92)
	Tu 3:30pm - 4:50pm	CCC 1205

CPSG200 **College Park Scholars: Science & Global Change Second-Year Colloquium**

Credits: 1 Grading Method: Regular

Prerequisite: CPSG101. Restriction: Students must be enrolled in the College Park Scholars Science & Global Change (CPSG) program.

Advanced colloquium: Continued examination of issues related to science and global change.

0101	Thomas Holtz, John Merck	Seats (Total: 90)
	M 3:30pm - 4:50pm	CCC 1205

CPSN College Park Scholars-International Studies Fall 2022

CPSN100 College Park Scholars: International Studies First-Year Colloquium I

Credits: 1 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Introductory colloquium: Examination of issues related to international studies.

0101	Stacy Kosko W 3:00pm - 4:15pm	Seats (Total: 25) CCC 1205
0102	Stacy Kosko W 3:00pm - 4:15pm	Seats (Total: 22) CCC 1205
0103	Stacy Kosko W 3:00pm - 4:15pm	Seats (Total: 25) CCC 1205
0104	Stacy Kosko W 3:00pm - 4:15pm	Seats (Total: 22) CCC 1205

CPSN230 College Park Scholars: International Studies - Internship Practicum

Credits: 1-3 Grading Method: Regular

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised internship project in an area related to international studies.

0101	Stacy Kosko, Sarah Kilmer Contact instructor or department for details.	Seats (Total: 20)

CPSN240 College Park Scholars: International Studies - Service-Learning Practicum

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised Service-Learning project in an area related to international studies.

0101	Stacy Kosko, Sarah Kilmer Contact instructor or department for details.	Seats (Total: 10)

CPSN250 College Park Scholars: International Studies - Research Practicum

Credits: 1-3 Grading Method: Regular, Pass-Fail

Prerequisite: CPSN101. Restriction: Students must be enrolled in the College Park Scholars International Studies (CPSN) program.

Supervised research in an area related to international studies.

0101	Karim Makkawy	Seats (Total: 2)
	Contact instructor or department for details.	

CPSP College Park Scholars Program Fall 2022

CPSP239 **Practicum: Internship**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP239A **Practicum: Internship**

Credits: 1-3 Grading Method: Regular

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

0101	Heather-Erin Bremenstuhl, Harold Burgess	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP239L **Practicum: Internship**

Credits: 1 Grading Method: Regular

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP239P **Practicum: Internship; Individual Practicum**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

0101	Kelly Brower	Seats (Total: 5)
	Contact instructor or department for details.	

CPSP239S **Practicum: Internship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised internship in interest area related to the theme of the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP249L **Practicum: Service-Learning; Life Sciences**

Credits: 2 Grading Method: Regular

Supervised Service-Learning project in area related to the theme of the students' College Park Scholars program.

Restricted to College Park Scholars - Life Sciences.

0101	Beth Parent	Seats (Total: 20)
	Contact instructor or department for details.	

CPSP249P **Practicum: Service-Learning**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised Service-Learning project in area related to the theme of the students' College Park Scholars program.

0101	Kelly Brower	Seats (Total: 1)
	Contact instructor or department for details.	

CPSP259I **Practicum: Research**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised research project in interest area related to the students' College Park Scholars program.

Contact department for information to register for this course.

CPSP259J **Practicum: Research; Media, Self, and Society**

Credits: 1-2 Grading Method: Regular

Supervised research project in interest area related to the students' College Park Scholars program.

Restricted to students in College Park Scholars Media, Self, and Society Program

Contact department for information to register for this course.

CPSP269 **Practicum: Peer Teaching**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269B **Practicum: Peer Teaching**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269E **Practicum: Peer Teaching**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269F **Practicum: Peer Teaching**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP269N **Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised peer teaching in students' College Park Scholars program.

Contact department for information to register for this course.

CPSP318B **College Park Scholars Special Topics; Business, Society and Economics**

(Perm req)

Credits: 1 Grading Method: Regular

Special Topics learning opportunities in College Park Scholars.

Contact department for information to register for this course.

CPSP318N **College Park Scholars Special Topics**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special Topics learning opportunities in College Park Scholars.

Contact department for information to register for this course.

CPSP339 **Advanced Practicum: Internship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

Contact department for information to register for this course.

CPSP339J **Advanced Practicum: Internship; Media, Self and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Kelly Brower	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP339P **Advanced Practicum: Internship**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

0101	Susannah Washburn	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP369A **Advanced Practicum: Peer Teaching; Arts**

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369D **Advanced Practicum: Peer Teaching; Science, Discovery, and the Universe**

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369E **Advanced Practicum: Peer Teaching**

Credits: 2 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369G **Advanced Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369J **Advanced Practicum: Peer Teaching**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Supervised advanced practicum in peer instruction.

0101	Kelly Brower	Seats (Total: 10)
	Contact instructor or department for details.	

CPSP369L **Advanced Practicum: Peer Teaching; Life Sciences**

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369N **Advanced Practicum: Peer Teaching; International Studies**

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369P **Advanced Practicum: Peer Teaching; Public Leadership**

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP369T **Advanced Practicum: Peer Teaching; Science, Technology, and Society**

(Perm req)

Credits: 1-3 Grading Method: Regular

Supervised advanced practicum in peer instruction.

Contact department for information to register for this course.

CPSP388E **Advanced Special Topics in College Park Scholars; Advanced Special Topics in College Park Scholars**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.

Independent study to allow continuation of Connection Project from CPET101.

Contact department for information to register for this course.

CPSS College Park Scholars-Science, Technology and Society Fall 2022

CPSS100 **College Park Scholars: Science, Technology & Society First-Year Colloquium I**

Credits: 2 Grading Method: Regular

Restriction: Students must be enrolled in the College Park Scholars Science, Technology & Society (CPSS) program.

Introductory colloquium: Examination of issues related to science, technology and society.

0101	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 16) CCC 1100 CCC 1105	Discussion
0102	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 16) CCC 1100 CCC 1111	Discussion
0103	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 16) CCC 1100 CCC 1115	Discussion
0104	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 16) CCC 1100 CCC 1200	Discussion
0105	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 16) CCC 1100 CBD 1140	Discussion
0106	David Tomblin, Nicole Mogul M 3:15pm - 4:50pm M 4:00pm - 4:50pm	Seats (Total: 15) CCC 1100 CBD 1140	Discussion

CPSS220 **The Future of Communicating Science**

Credits: 3 Grading Method: Regular General Education: DVCC

Restriction: Must be in the College Park Scholars Science, Technology or Society program or have permission of the program.

How can scientists communicate their work effectively? The field of science communication ventures that the answer is not simply a matter of improving capacity (e.g., because people lack scientific information, scientists lack communication skills, or both). Rather, it calls for sustained collaboration and empathy between laypersons and experts. In this hands-on, experiential course, we use a model of cultural competency to put forth solutions to bridge the expert-lay divide. We investigate typical venues in which science is communicated (museums, YouTube videos, federal agency websites, and much much more) and study best practices for communication. Then we explore emerging venues that support sustained contact between so-called "lay citizens" and scientific or technical experts (dance/improv techniques, ethnographic methods and citizen science). Students learn to use cross-cultural perspectives as a basis to pilot and test ways of strengthening relationships and improving communication.

0101	Nicole Mogul TuTh 11:00am - 12:15pm	Seats (Total: 20) CCC 1105	

CPSS225 **College Park Scholars Capstone: Science, Technology, and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Prerequisite: CPSS100. Restriction: Must be in the College Park Scholars Science, Technology & Society (CPSS) program. Formerly: CPSP227.

Exploration and understanding of ways science and technology shape and are shaped by society.

0101	Kuan-Hung Lo	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	CCC 1105

CPSS240 **College Park Scholars: Science, Technology & Society - Service-Learning Practicum**

Credits: 3 | Grading Method: Regular | General Education: DSSP, SCIS

Restriction: Matriculation into the College Park Scholars Science, Technology & Society (CPSS) program; or permission of instructor.

Supervised Service-Learning practicum in issues related to science, technology and society.

Most of the class times will be spent at area Prince George's schools with partnering robotics teams. Consult the class requirements and locations provided in the syllabus at the beginning of the class. This course requires a $61 background check fee for working in Prince Georges County K-12 schools.

0201	Vivian Zohery	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	CCC 1105

CPSS340 **College Park Scholars: Infrastructure and Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must be currently enrolled in a College Park Scholars program. Credit only granted for: CPSP349T or CPSS340. Formerly: CPSP349T.

One of the most important, and underappreciated, aspects of our society is its infrastructure (roads, buildings, communication systems, water delivery systems, sanitation systems, energy systems, etc.). We often take for granted the services infrastructure bring us. As a consequence, the United States, which at one time was a world leader in creating infrastructure, is experiencing an infrastructure crisis. Furthermore, not everyone experiences this issue equally. This course is designed to identify the root causes of the crisis. You will explore emerging social, political, legal, cultural, and social justice issues associated with the building and maintenance of infrastructure from the perspective of Science and Technology Studies (STS) and engineers. You will work with a volunteer corps of professional engineers from a variety of disciplines on a service-learning project designed to assess the safety and vitality of infrastructure.

0101	David Tomblin	Seats (Total: 20)	
	TuTh 2:00pm - 3:15pm	CCC 1115	

DANC Dance Fall 2022

DANC109 **Choreography I: Improvisation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

Prerequisite: by permission of department. Students must pay a $25.00 lab fee.

5501	Sara Pearson	Seats (Total: 12)	
	TuTh 11:00am - 12:15pm	PAC 1912	Lab
5502	Sara Pearson	Seats (Total: 10)	
	MW 11:00am - 12:15pm	PAC 1912	

DANC128 **Fundamentals of Ballet**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to ballet technique and terminology for the beginning student.

Students must pay a $25 lab fee.

5501	Rebecca Steinberg	Seats (Total: 15)	
	TuTh 12:30pm - 1:45pm	PAC 1908	

DANC138A **Global Dance Forms; Musical Theatre Jazz**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit , D

Movement course. Traditional dances and music of selected cultures.

5501	Amber Daniels	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	PAC 2740	

DANC148 **Fundamentals of Modern Dance**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to modern dance with emphasis on the development of fundamental movement skills.

Students must pay a $25 lab fee.

5502	Carlo Villanueva MW 11:00am - 12:15pm	Seats (Total: 30) PAC 1908	Lab
5504	Gabriel Mata-Ortega, Marielis Garcia TuTh 12:30pm - 1:45pm	Seats (Total: 30) PAC 1912	Lab

DANC179 **Movement Integration**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Conditioning and re-patterning techniques for achieving integrated movement.

Students must pay a $25.00 lab fee.

5501	Adriane Fang TuTh 2:00pm - 3:15pm	Seats (Total: 20) PAC 1611	Lab

DANC199 **Practicum in Choreography, Production and Performance I**

(Perm req)

Credits: 1-2 Grading Method: Regular, Pass-Fail, Audit

Choreography, production, and performance of student works, both on and off campus.

Contact department for information to register for this course.

DANC200 **Introduction to Dance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HA, D General Education: DSSP

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

0101	Gerson Lanza Ruiz TuTh 2:00pm - 3:15pm	Seats (Total: 25) PHY 1204
0201	Mary Ford, Britney Falcon TuTh 12:30pm - 1:45pm	Seats (Total: 15) ATL 1113
0301	Javier Padilla Garcia TuTh 11:00am - 12:15pm	Seats (Total: 25) HBK 0125
FC01	Susan Miller TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PAC 1809

DANC200S **Introduction to Dance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA, D | General Education: DSSP

A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

Restricted to College Park Scholars - Arts.

0201	Mary Ford, Britney Falcon TuTh 12:30pm - 1:45pm	Seats (Total: 15) ATL 1113	

DANC218 **Modern Dance I**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Development of heightened body awareness, breath support, dynamic alignment, and spatial awareness. Focus on rhythmic clarity and musicality.

Prerequisite: permission of department. Students must pay a $25.00 lab fee.

5501	Kendra Portier, Patrik Widrig MWF 1:00pm - 2:30pm	Seats (Total: 17) PAC 1912	Lab

DANC219 **Modern Dance II**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC218 with an added focus on momentum, the use of counter-tension, stability/mobility, suspension, and dynamic range.

Prerequisite: DANC218 and permission of department. Students must pay a $25.00 lab fee.

5501	Kendra Portier, Patrik Widrig MWF 1:00pm - 2:30pm	Seats (Total: 10) PAC 1912	Lab

DANC228 **Ballet I**

(Perm req)

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

Barre and center work for alignment, strength, flexibility and coordination. Introduction to ballet terminology.

Students must pay a $25.00 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Marielis Garcia, Gabriel Mata-Ortega TuTh 2:00pm - 3:15pm	Seats (Total: 10) PAC 1908	Lab

DANC229 **Ballet II**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC228.

Students must pay a $25.00 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Marielis Garcia, Gabriel Mata-Ortega	Seats (Total: 10)	
	TuTh 2:00pm - 3:15pm	PAC 1908	Lab

DANC299 **Practicum in Choreography, Production and Performance II**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC199.

Contact department for information to register for this course.

DANC304 **Dance Education I: Foundations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-Dance department.

Organization and content of the studio dance class. Structuring developmentally appropriate dance experiences for students ages 3-18.

0101	Crystal Davis	Seats (Total: 28)
	MW 1:00pm - 2:15pm	PAC 1908

DANC309 **Choreography III: Dance Composition**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Exploration of the structural elements of dance composition.

5501	Alvin Mayes	Seats (Total: 17)
	MW 3:00pm - 4:45pm	PAC 1912

DANC318 **Modern Dance III**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC219 with an added focus on off-verticality, spirals, complex level changes, more complex and extended phrasing, responsiveness to accompaniment, vocalization.

Prerequisite: DANC219 and permission of department. Students must pay a $25.00 lab fee.

5501	Adriane Fang, Kendra Portier	Seats (Total: 11)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC319 **Modern Dance IV**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of the elements addressed in DANC318 with an added focus on movement subtlety and complexity, and stylistic demands.

Prerequisite: DANC318 and permission of department. Students must pay a $25.00 lab fee.

5501	Adriane Fang, Kendra Portier	Seats (Total: 14)	
	MWF 9:00am - 10:30am	PAC 1912	Lab

DANC328 **Ballet III**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Kendra Portier, Marielis Garcia	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	PAC 1908

DANC329 **Ballet IV**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC328.

Students must pay a $25 lab fee. Email Susan Miller at smille13@umd.edu for permission to register.

5501	Kendra Portier, Marielis Garcia	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	PAC 1908

DANC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Contact department for information to register for this course.

DANC398 **Directed Studies in Dance**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

DANC399 **Practicum in Choreography, Production and Performance III**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC299.

Prerequisite: DANC 299.

0101	Adriane Fang Class time/details on ELMs	Seats (Total: 5) ONLINE	
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE	
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE	
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE	
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 15) ONLINE	
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE	Lab
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE	
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE	
0901	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE	Lab
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 15) ONLINE	

DANC418 **Contemporary Modern**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Physical practice that sources postmodern dance influences, endurance training, improvisation, and choreographic composition to present movement practices as a form of investigation.

Students must pay a $25 lab fee.

5501	Cyrah Ward	Seats (Total: 15)	
	TuTh 12:30pm - 1:45pm	PAC 1611	

DANC448 **Modern Dance V**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Complex phrases of modern dance movement with emphasis on articulation and expression.

Prerequisite: DANC349 and aududition. Students must pay a $25.00 lab fee.

5501	Patrik Widrig, Adriane Fang	Seats (Total: 10)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC449 **Modern Dance VI**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Continuation of DANC448.

Prerequisite: DANC 448 and permission from the department Students must pay a $25.00 lab fee.

5501	Patrik Widrig, Adriane Fang	Seats (Total: 5)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC468 **Dance Repertory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Form, content, music, design and performance of modern dance works.

Ballet focused repertory.

5501	Alvin Mayes	Seats (Total: 12)	
	F 3:00pm - 5:30pm	PAC 1912	Lab

DANC489D **Special Topics in Dance; Creative Process in Screen Dance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Theoretical, choreographic, pedagogic, or performance study.

Students must pay a $25 lab fee.

5501	Mary Ford TuTh 9:30am - 10:45am	Seats (Total: 12) PAC 1611

DANC499 **Practicum in Choreography, Production and Performance IV**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Advanced workshop in dance presentation, including performing, production and planned field experiences.

Prerequisite: DANC 399.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 5) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 15) ONLINE
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
0901	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 15) ONLINE

DANC600 **Graduate Dance Research**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Supervised writing of reports and articles on selected dance subjects. Study of library resources and interviewing techniques. Preparation for written documentation of thesis project.

0101	Maura Keefe	Seats (Total: 5)	
	W 2:00pm - 4:30pm	PAC 1924	

DANC604 **Graduate Studies in Dance Pedagogy**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Curriculum writing, lesson planning, class structure, assessment/grading, and practice in dance pedagogy. Includes preparation of syllabi and studio teaching practice. This course counts towards teaching ceritification in the State of Maryland.

Students must pay a $25 lab fee.

5501	Crystal Davis	Seats (Total: 5)	
	Tu 3:00pm - 4:15pm	PAC 2804	
	Th 3:00pm - 4:45pm	PAC 1924	Lab

DANC608 **Graduate Choreography I: Creative Process**

Credits: 3

Grading Method: Regular, Audit

Developing and defining individual choreographic voice and vision in a shared studio setting.

Prerequisite: Admission to MFA in Dance or permission of department. Students must pay a $25.00 lab fee. Developing and defining individual choreographic voice and vision in a s ared studio setting.

5501	Kendra Portier	Seats (Total: 5)	
	MW 11:00am - 12:50pm	PAC 1610	Lab

DANC610 **Workshop in the Direction of Dance Production**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Prerequisite: DANC410; or students who have taken courses with comparable content may contact the department.

A lecture/laboratory course dealing with the relationship of the director to all of the activities involved in the presentation of a dance concert.

5501	Samuel Crawford, Kendra Portier	Seats (Total: 5)	
	M 5:00pm - 6:15pm	PAC 1924	

DANC628 **Graduate Ballet**

Credits: 1 Grading Method: Regular, Audit

Execution of the vocabulary of ballet movement with technical accuracy.

Students must pay a $25 lab fee.

5501	Marielis Garcia	Seats (Total: 5)	
	TuTh 11:00am - 12:15pm	PAC 1908	

DANC648 **Advanced Modern Dance Technique I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Professional level training in contemporary dance techniques.

Students must pay a $25 lab fee.

5501	Patrik Widrig, Adriane Fang	Seats (Total: 5)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC649 **Advanced Modern Dance Technique II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

A continuation of DANC 648.

Students must pay a $25 lab fee.

5501	Patrik Widrig, Adriane Fang	Seats (Total: 5)	
	MWF 9:00am - 10:30am	PAC 1908	Lab

DANC678 **Individual Movement Practice**

(Perm req)

Credits: 2 Grading Method: Regular

Students in consultation with the adviser, propose a specific movement practice and can select the practice from the range of technique offerings in the program. Additional work in documenting and providing evidence of growth towards individual outcomes is required.

Contact department for information to register for this course.

DANC679 **Graduate Dance Performance**

Credits: 1-3 Grading Method: Regular, Audit

An advanced performance course focusing on the restagings from noted scores of the choreographic works of significant artists in the field.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 5) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 5) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 5) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 5) ONLINE
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 5) ONLINE

DANC689F **Special Topics in Dance; Aesthetics of Collaboration in Performance: Theory & Practice**

Credits: 3 Grading Method: Regular, Audit

Special Topics in dance theory, research or creative projects.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim MW 2:30pm - 3:45pm	Seats (Total: 15) PAC 1809

DANC689G **Special Topics in Dance; Dance Pedagogy - Intro to Dance**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

0101	Susan Miller TuTh 3:00pm - 4:15pm	Seats (Total: 1) PAC 1809

DANC689O **Special Topics in Dance; Dance Pedagogy - Movement Integration**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special Topics in dance theory, research or creative projects.

0101	Adriane Fang TuTh 2:00pm - 3:15pm	Seats (Total: 3) PAC 1611

DANC698 **Independent Study in Dance**

Credits: 1-3 Grading Method: Regular, Audit

Directed independent study in theoretical topics.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 3) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 3) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 3) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 5) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE
0601	Kendra Portier Class time/details on ELMs	Seats (Total: 3) ONLINE

0701	Crystal Davis Class time/details on ELMs	Seats (Total: 3) ONLINE
0801	Samuel Crawford Class time/details on ELMs	Seats (Total: 3) ONLINE
0901	Van Tran Nguyen Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 3) ONLINE

DANC699 **Thesis Writing Lab**

Credits: 1 Grading Method: Regular, Audit

The final writing project in MFA dance degree demonstrates students' ability to write critically about their creative work in relation to the dance field at large. A successful written thesis demonstrates a familiarity with concepts from dance history and critical theory as well as an ability to analyze movement and choreography. During the thesis writing lab, each student organizes ideas and establishes individual goals for the written project.

0101	Maura Keefe M 2:30pm - 3:30pm	Seats (Total: 5) PAC 1924

DANC719 **Graduate Choreography III: Projects**

Credits: 3 Grading Method: Regular, Audit

Research-based choreographic projects in preparation for the choreographed thesis project.

Prerequisite: Admission to MFA in Dance or permission of department. Students must pay a $25.00 lab fee. Research-based choreographic projects in preparation for the choreographed thesis project.

5501	Maura Keefe MW 11:00am - 12:50pm	Seats (Total: 5) PAC 1611

DANC777 **Internship in Dance**

(Perm req)

Credits: 1-5 Grading Method: Regular

Restriction: Must be admitted to MFA in Dance; or permission of ARHU-School of Theatre, Dance & Performance Studies department.

Internship in dance advocacy, administration, education, community building, choreography, or performance with an agency off campus and with a national or international profile.

0101	Crystal Davis Class time/details on ELMs	Seats (Total: 5) ONLINE

DANC788 **Master's Tutorial for Choreography; Graduate Tutorial**

Credits: 1-3 Grading Method: Regular, Audit

Supervised production and presentation of a significant choreographic project.

0101	Patrik Widrig Class time/details on ELMs	Seats (Total: 3) ONLINE
0201	Sara Pearson Class time/details on ELMs	Seats (Total: 3) ONLINE
0301	Maura Keefe Class time/details on ELMs	Seats (Total: 3) ONLINE
0401	Alvin Mayes Class time/details on ELMs	Seats (Total: 3) ONLINE
0501	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE
0601	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE
0701	Crystal Davis Class time/details on ELMs	Seats (Total: 3) ONLINE
0801	Instructor: TBA Class time/details on ELMs	Seats (Total: 3) ONLINE
1001	Adriane Fang Class time/details on ELMs	Seats (Total: 3) ONLINE

DANC799 **Master's Thesis Project**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

DATA Data Science and Analytics Fall 2022

DATA110 **Applications of R for Data Science**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: STAT100, (OR MATH 135 OR any 400 level STAT course). Cross-listed with: STAT110.

This course is intended to prepare students for courses requiring computation with R, providing powerful and easy to use tools for statistical analysis.

Credit only granted for DATA110 or STAT110.

0101	Susan Mazzullo	Seats (Total: 30)
	Meets August 29, 2022 - October 10, 2022	
	Class time/details on ELMs	ONLINE

DATA601 Probability and Statistics

Credits: 3 Grading Method: Regular

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Cross-listed with: BIOI601, MSML601. Credit only granted for: BIOI601, DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	
PCS2	Sandra Cerrai	Seats (Total: 50)
	W 6:00pm - 8:45pm	IRB 1207
	Must be in Graduate Programs in Science Academy.	

DATA602 Principles of Data Science

Credits: 3 Grading Method: Regular

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: BIOI602, MSML602. Credit only granted for: BIOI602, DATA602, MSML602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCS1	Arefeh Nasri, Mohammad Hajiaghayi	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	ESJ 2208
	Must be in Graduate Programs in Science Academy.	
PCS2	Mohammad Hajiaghayi, Arefeh Nasri	Seats (Total: 50)
	Th 6:00pm - 8:45pm	IRB 2207
	Must be in Graduate Programs in Science Academy.	

DATA603 Principles of Machine Learning

Credits: 3 Grading Method: Regular

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: BIOI603, MSML603. Credit only granted for: BIOI603, DATA603, MSML603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi	Seats (Total: 50)
	Th 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy.	
PCS2	Kemal Davaslioglu	Seats (Total: 50)
	F 4:00pm - 6:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	

DATA607 Communication in Data Science and Analytics

Credits: 3 Grading Method: Regular

Prerequisite: DATA602.

Expected learning outcomes include that, in the context of data science and analytics, students should be able to: summarize, report, organize prose, statistics, graphics, and presentations; explain uncertainty, sensitivity/robustness, limitations; describe model generation and representation; discuss interpretations and implications; communicate effectively to diverse audiences within a business organization, and possibly other outcomes.

PCS1	Vincent Lyzinski	Seats (Total: 50)
	Th 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	

DATA650 Cloud Computing

Credits: 3 Grading Method: Regular

Cross-listed with: MSML650.

The course will present the state of the art in cloud computing technologies and applications. Topics will include: telecommunications needs, architectural models for cloud computing, cloud computing platforms and services. Data center networking, server, network and storage virtualization technologies, and containerization. Cloud operating and orchestration systems. Security, privacy, and trust management; resource allocation and quality of service; interoperability and internetworking.

PCS1	Zoltan Safar	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	

DATA699 Capstone Research Project

Credits: 3 Grading Method: Regular

Expected learning outcomes include that students should be able to: originate and conduct a data science/data analysis project applicable to organization objectives; develop a written report; construct other deliverables (e.g., web site, database, enriched media presentation); and possibly other outcomes. Students will choose a project reflecting their domain interest (and perhaps of professional relevance). The course instructor will provide guidance to set appropriate expectations and scope. Intended to be ultimate course of the program, though course may be taken concurrently with other courses except DATA698.

PWS1	Michael Cummings	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Science Academy.	

ECON Economics Fall 2022

The Department of Economics enforces course prerequisites. Students do not meet the course prerequisites will be administratively dropped from the course.

ECON111 Thinking Like an Economist

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

Restriction: Sophomore standing or lower; or permission of BSOS-Economics department.

An introduction to the modes of thought of economics. Use of simple standard tools of economics to analyze important problems that arise frequently in public policy, the news media, and in daily life. An emphasis on how economists predict what choices societies make and how economists analyze whether those are good choices. Practical application of a variety of economic tools leading to a focus on the essential unity underlying these analytical tools, viewing economics as a discipline that applies a core methodology in different ways in different situations.

0101	Peter Murrell MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) TYD 1102 TYD 2109	Discussion
0102	Peter Murrell MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) TYD 1102 TYD 2109	Discussion
0103	Peter Murrell MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 20) TYD 1102 TYD 2109	Discussion

ECON175 Inequality: Determinants and Policy Remedies

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

History shows that the gap between the rich and the poor has varied over time within and between countries, most recently seeming to increase within many countries while somewhat decreasing between countries. This course challenges students to investigate why people make different amounts of money, why income inequality has changed dramatically in recent years, what public policy tools exist to counter inequality increases, and what different institutional arrangements different countries use to lower inequality. This course will introduce students to theoretical tools used by economists to understand the sources of inequality and will also examine various empirical measures of inequality.

0101	Ethan Kaplan TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 16) TYD 0117 TYD 2106	Discussion
0102	Ethan Kaplan TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 16) TYD 0117 TYD 2106	Discussion

0103	Ethan Kaplan TuTh 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 16) TYD 0117 TYD 2106	Discussion
0104	Ethan Kaplan TuTh 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 16) TYD 0117 TYD 2106	Discussion

ECON181 **Putting a Price on the Environment: An Economist's Perspective on Sustainability**

Credits: 3 | Grading Method: Regular | General Education: DSHS, SCIS

How does society balance the benefits of environmental protection and preservation against the costs? Though some might say that the environment is priceless, economists recognize that every action involves trade-offs. This course investigates sustainability through comparing costs and benefits. From this perspective, other questions arise: How can we design policies that incentivize sustainable choices? Why might usual market functioning fail to achieve sustainability? Do we need to put a price on the environment in order to protect it? How do we measure an economy's "success"? This course explores the answers to these and other related questions from an economist's perspective.

0101	Erin Moody TuTh 11:00am - 12:15pm	Seats (Total: 120) ESJ 1224

ECON200 **Principles of Microeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Credit only granted for: ECON200, AREC240, or AREC250. Additional information: It is recommended that students complete ECON200 before taking ECON201.

Introduces economic models used to analyze economic behavior by individuals and firms and consequent market outcomes. Applies conceptual analysis to several policy issues and surveys a variety of specific topics within the broad scope of microeconomics.

0101	Stefania Scandizzo TuTh 9:30am - 10:45am	Seats (Total: 375) TYD 0130
0201	Stefania Scandizzo TuTh 11:00am - 12:15pm	Seats (Total: 375) TYD 0130
0301	Hossein Abbasi TuTh 12:30pm - 1:45pm	Seats (Total: 375) TYD 0130

FC01	Hossein Abbasi	Seats (Total: 229)
	MW 7:30pm - 8:45pm	TYD 0130
	Restricted to students in Freshmen Connection.	

ECON201 **Principles of Macroeconomics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Prerequisite: MATH107 or MATH110; or must have math eligibility of MATH113 or higher. Recommended: ECON200. Credit only granted for: ECON201 or ECON205.

An introduction to how market economies behave at the aggregate level. The determination of national income/output and the problems of unemployment inflation, will be examined, along with monetary and fiscal policy.

0101	John Shea	Seats (Total: 250)
	TuTh 2:00pm - 3:15pm	SKN 0200
0201	Naveen Sarna	Seats (Total: 250)
	TuTh 3:30pm - 4:45pm	TYD 0130

ECON230 **Applied Economic Statistics**

Credits: 3 | Grading Method: Regular | General Education: FSAR

Prerequisite: Must have math eligibility of MATH113 or higher; or 1 course with a minimum grade of C- from (MATH107, MATH110); and minimum grade of C- in ECON200 and ECON201. Recommended: Students should already have basic familiarity with Microsoft Excel or similar spreadsheet software. Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introductory course to develop understanding of statistical concepts used in applied economics. Students will acquire skills needed to calculate and interpret statistical concepts, including descriptive statistics, probability, discrete and continuous distributions, sampling, point and interval estimations, hypothesis testing, basic analysis of variance, and simple linear regression models. Students will apply these concepts to data using both handheld calculators and spreadsheets(Excel), and students will be introduced to an econometric software package such as SPSS or SAS or R.

0101	Pierre De Leo	Seats (Total: 38)
	TuTh 11:00am - 12:15pm	TYD 2109

ECON300 **Methods and Tools for Economic Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON200, ECON201); and minimum grade of C- in MATH140. Restriction: Must be in Economics Bachelor of Science program; and must not have completed MATH241.

Economic application of mathematical tools and concepts necessary for intermediate and advanced coursework in economics. Topics include: multivariable calculus, constrained optimization, foundational coverage of probability theory, and exponential/logarithmic functions.

0101	Chenyu Yang MW 2:00pm - 3:15pm	Seats (Total: 60) TYD 1101

ECON305 **Intermediate Macroeconomic Theory and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in ECON201 and ECON200. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON305 or ECON325.

Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

0101	Martina Copelman TuTh 9:30am - 10:45am	Seats (Total: 140) ESJ 2204
0201	Martina Copelman TuTh 11:00am - 12:15pm	Seats (Total: 140) ESJ 2204

ECON306 **Intermediate Microeconomic Theory & Policy**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: 1 course with a minimum grade of C- from (ECON200, AREC250); and minimum grade of C- in ECON201. And 1 course with a minimum grade of C- from (MATH120, MATH130, MATH136, MATH140); or must have completed MATH220 with a minimum grade of C-. Credit only granted for: ECON306, ECON326, AREC489M, or AREC326.

Analysis of the theories of consumer behavior, producer behavior, different market structures, and various sources of inefficient outcomes. Analysis of microeconomic policies designed to improve market outcomes.

0101	Aaron Finkle MWF 11:00am - 11:50am	Seats (Total: 150) ESJ 1224
0201	Aaron Finkle MWF 12:00pm - 12:50pm	Seats (Total: 150) ESJ 1224

SG91	Mrinmoyee Chatterjee	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Restricted to BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ECON312 **American Economic History After the Civil War**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Topics include: the economics of the Civil War, the performance of southern agriculture in the late 19th century, the rise of large corporations, industrialization, the development of financial markets, the creation of the Federal Reserve Board, the economics of the Great Depression and the New Deal, the economic impact of World War II, and the rise of the modern service economy in the late 20th century. Utilizes basic economic theories to understand these episodes as well as the progress of the U.S. economy over this period.

0101	Alka Gandhi	Seats (Total: 30)
	MWF 10:00am - 10:50am	TYD 0102

ECON314 **Economic History, Development and Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200 and ECON201.

Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

Contact department for information to register for this course.

ECON315 **Economic Development of Underdeveloped Areas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON315 or ECON416.

Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

Contact department for information to register for this course.

ECON317 **Global Economic Policies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Analysis of policy options and debates on fostering economic growth and development in a global economy where national boundaries are no longer relevant. Topics covered will include real loanable funds markets in both local and international contexts during normal conditions and during financial crises, the design of trade and industrial policies, and the role of the World Bank, IMF, WTO, and other international agencies as well as regional and bilateral trade agreements. Emerging economies will be emphasized.

0101	Naveen Sarna TuTh 2:00pm - 3:15pm	Seats (Total: 40) TYD 0111	
0201	Naveen Sarna TuTh 5:00pm - 6:15pm	Seats (Total: 40) TYD 0111	

ECON321 Economic Statistics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program.

Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

0101	Alka Gandhi MWF 11:00am - 11:50am	Seats (Total: 40) TYD 0102	

ECON325 Intermediate Macroeconomic Analysis

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON305 or ECON325.

Analysis of macroeconomic behavior and policy with emphasis on theoretical rigor. Topics include the determinants of economic growth, unemployment, inflation, and international economic flows.

0101	L Stevens TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 30) SYM 0200 TYD 2102	Discussion

0102	L Stevens	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm F 11:00am - 11:50am	SYM 0200 TYD 2102	Discussion

ECON326 **Intermediate Microeconomic Analysis**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201; and minimum grade of C- in ECON300 or (MATH241 and any statistics course). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON306, ECON326, or AREC326.

Analysis of economic decision-making by individuals and firms, the resulting market outcomes, and applications to real-world problems. Emphasis on analytical logic and theoretical rigor. Topics covered include consumer preferences and utility maximization, perfect competition and market power, uncertainty and risk, externalities, and asymmetric information.

0101	Ginger Jin	Seats (Total: 30)	
	MW 2:00pm - 3:15pm F 11:00am - 11:50am	SYM 0200 TYD 1118	Discussion
0102	Ginger Jin	Seats (Total: 30)	
	MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	SYM 0200 TYD 1118	Discussion

ECON327 **Behavioral Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Integrating the insights of psychology into economics. Analysis of the ways in which individuals make decisions that systematically depart from the so-called "standard model" of homo economicus, which assumes perfect rationality, perfect selfishness, and perfect willpower. Investigating the implications of the major findings of behavioral economics for policymakers.

0101	Erkut Ozbay	Seats (Total: 80)	
	TuTh 11:00am - 12:15pm	TYD 0117	

ECON330 **Money and Banking**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201.

The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

0101	Martina Copelman TuTh 2:00pm - 3:15pm	Seats (Total: 250) TYD 0130
SG91	Thomas Drechsel MW 9:30am - 10:45am	Seats (Total: 120) ONLINE
	Restricted to BMGT-Shady Grove students. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ECON340 International Economics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Credit only granted for: ECON340 or ECON441.

Introduces economic models of international trade and finance. Analyzes policies designed to promote and restrict international trade and to manage exchange rates and impact international capital flows.

Contact department for information to register for this course.

ECON358K Special Topics in Study Abroad III; Spreadsheets and Data in Economics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358L Special Topics in Study Abroad III; Economics of Social Issues

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358M Special Topics in Study Abroad III; Financial Markets and Institutions

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON358N Special Topics in Study Abroad III; History of Economic Thought

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON371 **Economic Analysis of Good, Evil, and Fairness**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON200 and ECON201. Restriction: Must be in Economics Bachelor of Arts program.

Examines how economic tools can be used to analyze and better understand issues of "Good", "Evil" and "Fairness". Considers questions such as: What is the relation between fairness and equal treatment? Between fairness and equality? What makes an economic or political system "fair" or "unfair"? What makes a system "good"?

0101	Allan Drazen	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TYD 0101

ECON386 **Experiential Learning**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Prerequisite: ECON201 and ECON200. Restriction: Permission of BSOS-Economics department; and must be in a major within the BSOS-Economics department; and minimum cumulative GPA of 2.5; and junior standing or higher.

See Department Advising Office for course eligibility, course requirements, and application information.

Student and internship eligibility requirements, along with the ECON386 application, can be found at: http://ter.ps/ECON386.

Contact department for information to register for this course.

ECON387 **Career Preparation for Economics Majors**

Credits: 2 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science) ; and must have earned a minimum of 60 credits. Additional information: This course is intended for juniors or first semester seniors who are beginning their job search. Students who have already secured an employment opportunity for after graduation should not register.

Increase student knowledge of career paths, job search tools, and strategies for successfully obtaining a job with a BA or BS in economics. Students will engage in a range of different activities which build their understanding of job opportunities in economics and hone their abilities to find positions they want. Students will reflect on specific skills employers seek from economics graduates and incorporate that knowledge in their own individual job search and career plan.

0101	Stefania Scandizzo **Meets August 29, 2022 - October 14, 2022** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 2102 ONLINE		Discussion
0201	Stefania Scandizzo **Meets October 17, 2022 - December 12, 2022** F 12:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 20) TYD 2102 ONLINE		Discussion

ECON396 **Independent Honors Study**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of BSOS-Economics department.

First semester of the departmental honors sequence. Students will develop and apply research skills required to carry out original research. By the end of the semester students will have produced a complete draft of an honors thesis resembling a scholarly journal article.

0101	Nolan Pope TuTh 9:30am - 10:45am	Seats (Total: 15) TYD 1108		

ECON397 **Honors Thesis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON396. Restriction: Must be a candidate for honors in economics.

General supervision will be provided through assembled meetings with the professor in charge of the course.

Contact department for information to register for this course.

ECON398H **Topics in Economics; British Economy and Financial System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON398L **Topics in Economics; The British Economy and Financial Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

Contact department for information to register for this course.

ECON399 **Independent Study in Economics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Integrated readings and independent study under direction and supervision of a faculty member. Contact department for additional information.

Permission of instructor must be arranged in advance. Open only to students who have previously earned 6 or more credits in upper division economics courses.

Contact department for information to register for this course.

ECON401 **Current Issues in American Economic Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON424, ECON422, ECON426). Restriction: Permission of BSOS-Economics department; Must be in Economics Bachelor of Arts program.

Analysis of current economic problems and public policies. Topics could include poverty, income inequality, social insurance, education, environmental sustainability, immigration, and innovation. Other issues may be substituted depending on current events.

0101	Katharine Abraham	Seats (Total: 27)
	MW 9:30am - 10:45am	TYD 2109

ECON402 **Macroeconomic Models and Forecasting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of the fluctuations in economic activity and the formulation and use of forecasting models of the economy. Illustrations of computer macro models and forecasting problems.

0101	Boragan Aruoba	Seats (Total: 100)
	MW 2:00pm - 3:15pm Class time/details on ELMs	TWS 0310 ONLINE
	This course will meet periodically online.	

ECON410 **Comparative Economic Institutions**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325 and ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Institutions are the sets of rules that constrain the decisions and interactions of economic agents. The course uses economic analysis to understand both formal institutions (e.g. laws) and informal institutions (e.g. cultural norms). Practical examples are drawn from economics, law, and politics, and reflect the experience of many different countries.

0101	Peter Murrell	Seats (Total: 15)
	MW 11:00am - 12:15pm	TYD 2109

ECON414 **Game Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321, STAT400). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: CMSC474, ECON414, GVPT399A or GVPT390.

Studies the competitive and cooperative behavior that results when several parties find that their individual outcomes are jointly determined. Students will learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

0101	Daniel Vincent	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 1101

ECON416 **Analysis of Economic Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON325, ECON326, and ECON422. Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON315 or ECON416.

Analysis of the determinants and influences on economic development. Emphasis on both theoretical models and econometric methods of explaining why some countries are poor, along with examination of policies to promote development.

Contact department for information to register for this course.

ECON417 **Estimating Policy and Program Impact**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326) and 1 course with a minimum grade of C- from (ECON424, ECON422). Restriction: Permission of BSOS-Economics department; Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

Governments, businesses, non-profits, funders, and other organizations must allocate scarce resources between competing uses. Understanding the causal effect of policies, programs or investments on key outcomes can guide the choices of these decision-makers. Correlations between policies and outcomes or changes in outcomes after new policies are adopted are rarely sufficient for estimating the causal effect, however. This course focuses on econometric strategies for obtaining unbiased causal estimates, including experimental methods, instrumental variables, regression discontinuity, and differences-in-differences. There will be an emphasis on using Stata and on interpreting the results of econometric analysis

0101	Sergio Urzua MW 11:00am - 12:15pm	Seats (Total: 40) TYD 2102

ECON422 **Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program. Credit only granted for: ECON422, ECON424, or AREC422.

Emphasizes the interaction between economic problems and the assumptions employed in statistical theory. Formulation, estimation, and testing of economic models, including single variable and multiple variable regression techniques, theory of identification, and issues relating to inference.

0101	Alka Gandhi MWF 1:00pm - 1:50pm	Seats (Total: 30) TYD 1102
0201	Ethan Kaplan TuTh 9:30am - 10:45am	Seats (Total: 30) TYD 2102

ECON423 **Advanced Topics in Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON422. Restriction: Must be in Economics Bachelor of Science program.

Interaction between economic problems and specification and estimation of econometric models. Topics may include: autocorrelation, heteroscedasticity, functional form, simultaneous equation models, logit and probit models, instrumental variables, qualitative choice models, and other computational methods.

Contact department for information to register for this course.

ECON424 **Applied Econometrics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON306, ECON325, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON422, ECON424 or AREC422.

Provide the knowledge and skills necessary to accomplish and utilize basic applied econometric analysis utilized by many business service providers, government agencies, and nonprofits engaged in policy analysis. Topics include simple and multiple regressions using cross section, time series, and panel data, issues of heteroskedasticity, serial correlation, and multicollinearity, models with binary dependent variable, and program evaluation. Course emphasizes application of knowledge using software packages but still covers essential theoretical background.

0101	Hossein Abbasi TuTh 9:30am - 10:45am	Seats (Total: 40) TYD 2111
0201	Hossein Abbasi TuTh 11:00am - 12:15pm	Seats (Total: 40) TYD 2111

ECON425 **Mathematical Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON305, ECON325); and 1 course with a minimum grade of C- from (ECON306, ECON326). Restriction: Must be in Economics Bachelor of Arts program.

Covers mathematical tools and skills utilized in upper undergraduate and master's level coursework in Economics and Public Policy. Reviews calculus and math of finance and growth. Introduces techniques of optimization, linear algebra, and differential equations and connects them to micro and macro theory and applications. Topics will also include coverage of probability theory to explore how economists model uncertainty, as well as economic applications of integration.

Contact department for information to register for this course.

ECON451 **Public Choice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Analysis of collective decision making, economic models of government, program budgeting, and policy implementation; emphasis on models of public choice and institutions which affect decision making.

0101	Peter Coughlin MWF 12:00pm - 12:50pm	Seats (Total: 38) TYD 0102
0201	Peter Coughlin MWF 1:00pm - 1:50pm	Seats (Total: 38) TYD 0102

ECON453 **Natural Resources and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AREC326, ECON306, or ECON326; and (BMGT230 or ECON230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts; Environmental Science & Policy-Env Economics). Cross-listed with: AREC453. Credit only granted for: AREC453 or ECON453.

Rational use and reuse of natural resources. Theory, methodology, and policies concerned with the allocation of natural resources among alternative uses. Optimum state of conservation, market failure, safe minimum standard, and cost-benefit analysis.

0101	Erik Lichtenberg TuTh 2:00pm - 3:15pm	Seats (Total: 36) ESJ B0320

ECON454 **Public Finance and Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, STAT400, ECON321). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science).

The role of the the public sector in a market economy constitutes the over-arching topic of this course. Emphasis lies on analyzing government expenditure programs and the microeconomics of tax policy.

0101	Daniel Reck MW 3:30pm - 4:45pm	Seats (Total: 80) SHM 2102

ECON455 **Economics of Education Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program. Credit only granted for: ECON468E or ECON455. Formerly: ECON468E.

Examines the role that government plays in providing and financing education. Analyzes why people invest in education. Considers the effects of education on long-term social and economic outcomes, the behavior of institutions that produce education, and how to design and implement public policies affecting the level and distribution of educational resources. Uses microeconomic models and empirical findings to analyze current issues in education policy.

0101	Nolan Pope	Seats (Total: 38)
	MW 3:30pm - 4:45pm	TYD 2102

ECON456 Law and Economics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, ECON321). Restriction: Must be in Economics Bachelor of Arts program.

Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity and efficiency issues .

0101	Aaron Finkle	Seats (Total: 80)
	MW 2:00pm - 3:15pm	TYD 0117

ECON458J Special Topics in Study Abroad IV; Topics in Econometrics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ECON465 Health Economics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ECON326; and 1 course with a minimum grade of C- from (ECON321, STAT401). Restriction: Must be in Economics Bachelor of Science program.

Analyze markets for health care and related products by understanding the incentives and constraints for various participants, including individuals, family units, doctors, pharmaceutical companies, hospitals, and insurance providers. Analysis will combine both theoretical models and empirical tools.

0101	Sebastian Galiani	Seats (Total: 40)
	MW 2:00pm - 3:15pm	TYD 2111

ECON470 Labor Economics: Theory and Evidence

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, BMGT230, STAT400, ECON321). Restriction: Must be in one of the following programs (Economics Bachelor of Arts; Economics Bachelor of Science). Credit only granted for: ECON470 or ECON471.

Analysis of labor markets in theory and the real world. Topics include labor supply, labor demand, human capital, performance incentives, unemployment, discrimination, and immigration. Students will develop an understanding of how formal economic research is used to analyze U.S. labor markets and how research influences policy debates.

0101	Solomiya Shpak	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	TYD 2111

ECON481 **Environmental Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Restriction: Must be in one of the following programs (Agricultural and Resource Economics; Agricultural and Resource Economics: Agribusiness; Environmental Science & Policy-Env Economics; Agricultural and Resource Economics: Environmental and Resource Economics; Economics Bachelor of Arts program). Cross-listed with: AREC481. Credit only granted for: ECON481 or AREC481.

An exploration of the use of economic incentives for protection of the environment and the determination of appropriate (or efficient) level of environmental quality. Also covers the choice of policy instruments for the attainment of environmental standards.

0101	Maureen Cropper	Seats (Total: 62)
	MW 3:30pm - 4:45pm	TYD 0117

ECON485 **Economics of Land Use**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (AREC326, ECON306, ECON326); and 1 course with a minimum grade of C- from (ECON230, ECON321, BMGT230). Cross-listed with: AREC455. Credit only granted for: AREC455 or ECON485.

Fundamentals of location theory. Microeconomics of land use decisions, including determination of rent and hedonic pricing models. Impacts of government decisions on land use, including regulation (e.g., zoning), incentives (transferable development rights), provision of public services, and infrastructure investments. Impacts of land use on environmental quality, including issues relating to sprawl, agricultural land preservation, and other topics of special interest.

Click here to review the ECON course list to determine how this course will count towards your major.

0101	David Newburn TuTh 3:30pm - 4:45pm	Seats (Total: 80) MMH 1400	

ECON499 **Independent Research in Economics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Directed research under the supervision of a faculty member. Contact department for additional information.

Contact department for information to register for this course.

ECON601 **Macroeconomic Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of BSOS-Economics department.

Introductory technical treatment of standard Keynesian, classical and new classical macroeconomic models. Expectations formation and microeconomic foundations of consumption, investment, money demand, and labor market behavior.

0101	John Shea, Sebnem Kalemli-Ozcan MW 12:30pm - 1:45pm M 5:00pm - 6:45pm	Seats (Total: 45) TYD 1132 TYD 1108	 Discussion

ECON603 **Microeconomic Analysis I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of BSOS-Economics department.

A detailed treatment of the theory of the consumer and of the firm, particularly emphasizing the duality approach. Topics include the household production model, imperfect competition, monopolistic and oligopolistic markets.

0101	Lawrence Ausubel, Emel Filiz Ozbay TuTh 2:00pm - 3:15pm Tu 5:15pm - 6:45pm	Seats (Total: 50) TYD 1118 TYD 1132	 Discussion

ECON616 **Economic Development II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON615, ECON603, and ECON604; or permission of BSOS-Economics department.

Survey of a variety of models explaining how market failures may lead to poverty and underdevelopment, with an emphasis on the empirical evaluation of constraints faced by individuals in developing countries and the programs that attempt to alleviate those constraints. Topics include: agricultural and land markets, labor markets, human capital in developing countries, credit markets, and consumption smoothing and risk coping.

0101	Jessica Goldberg	Seats (Total: 30)	
	MW 2:00pm - 3:15pm	TYD 3100	

ECON623 **Econometrics I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have advanced knowledge of probability, statistics, and linear algebra. Restriction: Permission of BSOS-Economics department.

An overview is provided of modern microeconometric methods with a focus on reduced form causal inference. Tools discussed include linear regression and selection on observables, instrumental variables including LATE and the role of heterogeneity in causal inference, difference-in-difference, regression discontinuity, synthetic control, matching, propensity score methods, and inverse probability weighted estimation. In addition, inferential issues such as weak instruments and techniques for robust standard errors and clustering are discussed. The course places strong emphasis on relating statistical methods to substantive empirical applications. Each topic is introduced with an empirical paper that uses the technique. The discussion of technical material is at an intuitive level that focuses on applications and recommendations for empirical practice. The course offers an opportunity to work on a number of extended empirical exercises that are based on published papers and original data.

0101	Guido Kuersteiner	Seats (Total: 41)	
	TuTh 11:00am - 12:15pm	TYD 1114	
	W 5:30pm - 7:15pm	TYD 1101	Discussion

ECON626 **Empirical Microeconomics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON624. Restriction: Must be in Economics (Doctoral) program.

An overview is provided of modern microeconometric methods with a focus on reduced form causal inference. Tools discussed include linear regression and selection on observables, instrumental variables including LATE and the role of heterogeneity in causal inference, difference-in-difference, regression discontinuity, synthetic control, matching, propensity score methods, and inverse probability weighted estimation. In addition, inferential issues such as weak instruments and techniques for robust standard errors, clustering, bootstrap and randomized inference are discussed, time permitting. The course places strong emphasis on relating statistical methods to substantive empirical applications. Each topic is introduced with an empirical paper that uses the technique. The discussion of technical material is at an intuitive level that focuses on applications and recommendations for empirical practice. The course offers an opportunity to work on a number of extended empirical exercises that are based on published papers and original data. Students practice working with data, implementing code in Stata and conducting their own empirical analysis. These exercises also offer practice in scientific writing relevant for empirical work.

0101	Guido Kuersteiner	Seats (Total: 23)	
	F 2:00pm - 4:30pm M 5:00pm - 6:15pm	TYD 0101 TYD 2102	Discussion

ECON630 **Computational Methods in Macroeconomics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON602 and ECON601. Restriction: Must be in one of the following programs (Economics (Master's); Economics (Doctoral)) ; or permission of BSOS-Economics department.

Essential computational methods used in macroeconomics. There will be particular focus on approximating the solution to dynamic stochastic general equilibrium models. Methods for representative-agent and heterogeneous-agent models will be extensively studied. Econometric methods such as Generalized Method of Moments, Maximum Likelihood, Vector Autoregressions wil also be covered.

0101	Boragan Aruoba	Seats (Total: 16)
	MW 11:00am - 12:15pm	TYD 0101

ECON635 **Experimental Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor.

An introduction to the methodology of laboratory and field experiments. The course concentrates on a series of experiments to show how experiments build on one another, allowing researchers with different theoretical dispositions to narrow the range of potential disagreement.

0101	Erkut Ozbay	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TYD 1108

ECON636 **Behavioral Economics**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON603 and ECON604; and permission of BSOS-Economics department.

An exploration of how people make decisions, questioning the concept of "perfect rationality" in the standard economic theory, providing improved models in line with the observed biases of decision makers. Focusing on decision making under risk and ambiguity, endowment effect, status quo bias, loss aversion, intertemporal choice, and selfish and pro-social preferences.

0101	Emel Filiz Ozbay	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	TYD 3100

ECON641 **Microeconomic Analysis**

Credits: 3 | Grading Method: Regular, Audit

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department. Credit only granted for: ECON641 or ECON506. Formerly: ECON506.

Microeconomic analysis applied to public policy problems with an emphasis on practical examples and how they illustrate microeconomic theories. Policy issues such as pollution, welfare and income distribution, market design, industry regulation, price controls, tax policy and health insurance are practical examples used to illustrate the abstract principles of microeconomics.

PCE1	Aaron Finkle	Seats (Total: 32)
	Th 6:30pm - 9:15pm	TYD 2109
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	
PR01	Wonjun Chang	Seats (Total: 23)
	Meets August 29, 2022 - November 18, 2022	
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.	

ECON642 **Topics in Applied Macroeconomics**

Credits: 3 | Grading Method: Regular, Audit

Restriction: Must be in M.Prof.Studies: Applied Economics program; or permission of BSOS-Economics department.

Focus is on applied macroeconomic models used by federal agencies to explain and predict economic behavior. Course emphasizes macroeconomic data: NIPA accounts, GDP, construction and application of CPI, labor force data and economic indicators. Students will also study a selected set of current macroeconomic topics including models of economic growth, economic fluctuations, monetary policy, inflation and financial markets.

PCE1	Colin Caines	Seats (Total: 32)
	W 6:30pm - 9:15pm	TYD 2111
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	

ECON643 Empirical Analysis I: Foundations of Empirical Research

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ECON643 or ECON521. Formerly: ECON521.

Fundamental aspects of data management and interpretation emphasizing sampling, descriptive statistics, index numbers and construction of aggregated variables. Students will learn probability theory, confidence intervals, hypothesis testing and regression analysis using the EXCEL spreadsheet program and STATA statistical software.

PCE1	Aaditya Dar	Seats (Total: 32)
	Tu 6:30pm - 9:15pm	TYD 2102
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	
PR01	John Straub	Seats (Total: 23)
	Meets August 29, 2022 - November 18, 2022	
	Tu 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.	

ECON645 Empirical Analysis III: Econometric Modeling and Forecasting

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON644. Credit only granted for: ECON645 or ECON523. Formerly: ECON523.

Study of empirical techniques that are particularly relevant to the analysis of microeconomic models. Emphasis is on advanced panel data methods, time series regressions, instrumental variables, limited dependent variables, and sample selection corrections.

PCE1	Ye Zhang	Seats (Total: 30)
	Tu 6:30pm - 9:15pm	TYD 2109
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.	
PR01	Cristina Tello-Trillo	Seats (Total: 16)
	Meets August 29, 2022 - November 18, 2022	
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.	

ECON652 Public Economics I

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON604 and ECON624.

The characteristics and effects of government programs whose role is redistribution and social insurance are considered. Examples include cash welfare assistance, unemployment insurance, and Social Security. The focus is on U.S. programs, though other countries may be considered. Both theories of program design and empirical research on program effects will be covered. Topics in empirical methodology generally will also be stressed.

0101	Lucas Goodman	Seats (Total: 20)
	MW 6:30pm - 7:45pm	KEY 0124

ECON664 Empirical Studies in Industrial Organization

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603, ECON604, and ECON624. Credit only granted for: ECON664 or ECON698J. Formerly: ECON698J.

Introduces students to the recent empirical literature of industrial organization. It consists of four themes: pricing and contracting; cartels, collusion and merger reviews; demand estimation; and information economics.

0101	Ginger Jin	Seats (Total: 20)
	MW 11:00am - 12:15pm	TYD 1132

ECON670 Financial Economics

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

The course applies microeconomic theory and applied econometric techniques to the study of financial institutions and markets for financial assets. Students will learn how economists model and estimate the value of financial assets. The economic and empirical models are of interest to public policy makers and private wealth managers. Specific topics can include financial intermediation, the regulation of financial institutions, risk management, portfolio theory, the capital asset pricing model and the efficient markets hypothesis.

PR01	Ilknur Zer Boudet	Seats (Total: 23)	
	Meets August 29, 2022 - November 18, 2022		
	Tu 6:45pm - 9:30pm	Location: TBA	
	Class time/details on ELMs	ONLINE	Discussion

Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.

ECON674 Economic Analysis of Law

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON644.

A study of the application of economics to law with a focus on game theory, strategic behavior and public policy.

PR01	Randy Chugh	Seats (Total: 23)	
	Meets August 29, 2022 - November 18, 2022		
	M 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion

Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly in-person, with weekly in-person meetings at the noted times. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.

ECON675 Environmental Economics

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641; and must have completed or be concurrently enrolled in ECON645.

A study of the nature of environmental regulation focusing on U.S. environmental policies and policy debates.

PCE1	Hong Kim	Seats (Total: 25)
	M 6:30pm - 9:15pm	TYD 2111

Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.

ECON676 Economic Development

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON641; and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Analysis of economic development. The course will focus on the consequences of poverty and poor institutions for the behavior and welfare of individuals, households, firms and the aggregate economy in developing countries. Theoretical models and empirical evidence will be used to understand the intended and unintended consequences of policies designed to enhance economic development.

PCE1	Steven Payson	Seats (Total: 25)
	W 6:30pm - 9:15pm	TYD 2109

Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.

ECON683 International Macroeconomics and Finance

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: ECON641 and ECON642; and must have completed or be concurrently enrolled in ECON644. Restriction: Must be in M.Prof.Studies: Applied Economics program.

Economic analysis of international macroeconomic issues and policy. Topics can include the study of exchange rates, balance of payments, international financial markets, international business cycles, contagion, and the roles played by international economic institutions.

PCE1	Ricardo Reyes-Heroles	Seats (Total: 25)	
	M 6:30pm - 9:15pm	TYD 1132	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu.		
PR01	Mahsa Agha Gholizadeh	Seats (Total: 23)	
	Meets August 29, 2022 - November 18, 2022		
	W 6:45pm - 9:30pm Class time/details on ELMs	Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		

ECON687 Economics Applications of R Programming

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: ECON645. Restriction: Must be in Applied Economics Master of Science program; or permission of the program director.

Builds on the data analysis and econometric skills learned in the Empirical analysis sequence of ECON 643, 644, and 645. The STATA skills acquired in that sequence, such as basic data manipulation and econometric estimation, will be extended to the R programming language. The fundamentals of more advanced scientific programming--objects, data structures, loops, functions, simulation, parallel computing--will be introduced with applications to economics and the social sciences. Additional emphasis is placed on good coding practices and tools for version control and collaboration such as Git and R Markdown.

PR01	Christopher Adams **Meets August 29, 2022 - November 18, 2022** Th 6:45pm - 9:30pm Class time/details on ELMs	Seats (Total: 23) Location: TBA ONLINE	Discussion
	Must be in Graduate Programs in Applied Economics, WDC. All other graduate students must request permission. Contact oes@umd.edu. This blended section will be mostly in-person, with weekly in-person meetings at the noted times and online discussions. The weekly class meetings will be at 1400 16th Street, NW in Washington, DC. The online requirements will include mandatory weekly online discussions. Some additional online content may be required.		
PWE1	Yesol Huh Th 6:30pm - 9:15pm	Seats (Total: 25) ONLINE	
	Must be in Graduate Programs in Applied Economics, UMCP. All other graduate students must request permission. Contact oes@umd.edu. This section will be mostly online, with weekly synchronous online meetings that occur within the noted timeframe. However, students are required to attend in-person proctored exams (midterm and final exam) that will be on campus.		

ECON699 **Applied Economics Internship Experience**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Variable credit course for MS Applied Economics and Economic Analysis graduate certificate students participating in internships with well-established organizations and regular supervision from experienced professionals.

Contact department for information to register for this course.

ECON702 **Advanced Macroeconomics II**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ECON602 and ECON601.

Recent advances in the fast-growing subfield of behavioral macroeconomics, with applications to business cycles and monetary economics. We will discuss surveys and controlled laboratory experiments that test the full information rational expectations (FIRE) hypothesis, and characterize deviations from FIRE in individual beliefs and actions, and we will study models that relax both the FI and the RE assumptions in general equilibrium settings, to bridge the gap between individual biases and constraints on the one hand and aggregate consequences and policy implications on the other.

0101	L Stevens TuTh 2:00pm - 3:15pm	Seats (Total: 20) TYD 3100

ECON703 **Advanced Microeconomics I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON604 and ECON603.

A formal treatment of game theory and its microeconomic applications is presented. Equilibrium concepts for static and dynamic games, and games with complete and incomplete information are studied. Topics also discussed: the relation between games in strategic form and games in extensive form, equilibrium refinement, Bayesian games, multi-dimensional mechanism design, dominant strategy and Bayesian implementation, Nash-in-Nash bargaining solutions.

0101	Daniel Vincent	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TYD 1132

ECON708 **Advanced Topics in Applied and Theoretical Microeconomics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in microeconomics, including public economics, environmental economics, labor economics, industrial economics, microeconomic theory, public choice and international trade. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0601	Sergio Urzua	Seats (Total: 45)
	MW 12:30pm - 1:45pm	TYD 0101

ECON709 **Advanced Topics in Applied and Theoretical Macroeconomics**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Read, discuss, and analyze current topics in macroeconomics, including asset pricing models, models of economic growth, investment, and the labor market. Specific topics covered will change from semester to semester depending on the students' and faculty's interests. Intended primarily for students beginning thesis research in economics.

0101	John Shea	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	TYD 0101

ECON721 **Econometrics III**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON624; or permission of BSOS-Economics department.

Oriented towards macro-econometric methods. Topics covered will be selected from the following: Further discussion of topics covered in ECON624, non-stationary time series models (models with deterministic trends, unit roots, co-integration, error correction models, vector autoregressive models), econometric models of conditional heteroskedasticity (ARCH and GARCH models), Bayesian econometrics and methods for Bayesian computation, large-dimensional factor analysis, models of changes in regime, and methods for time series forecasting.

0101	John Chao	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	TYD 2102

ECON741 **Advanced International Economics I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON601; or permission of BSOS-Economics department.

International Business Cycles; Exchange Rate Determination; Imperfect Financial Markets; Deviations from Full Information Rational Expectations; Monetary and Exchange Rate Policy

0101	Pierre De Leo	Seats (Total: 16)
	TuTh 9:30am - 10:45am	TYD 3100

ECON754 **Topics in Political Economy I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603 and ECON604; or permission of BSOS-Economics department.

Basic Electoral Models of Aggregating Preferences and Information. Political Participation and Voter Turnout. Pivotal and Ethical Voters. Opportunistic versus Policy-Motivated Candidates. Credibility of Policy. Political Agency and Accountability - Moral Hazard and Selection. Legislatures - Legislative Bargaining and Legislative Dynamics. Special Interest Politics. Campaign Financing. Political Polarization and Ambiguity. Behavioral Political Economy. Populism and Authoritarianism. Political Parties.

0101	Allan Drazen	Seats (Total: 20)
	MW 11:00am - 12:15pm	TYD 2111

ECON771 **Advanced Labor Economics: Theory and Evidence**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ECON603 and ECON624; or permission of BSOS-Economics department. Restriction: Must be in the Economics Doctoral program.

Provides students the theoretical background and econometric tools to engage and conduct research in labor economics. The course highlights the importance of a good balance between theory and solid empirical work. The topics include human capital, empirical earning functions, labor demand, incentive, discrimination, minimum wage, labor supply, tasks and skills, and inequality. In addition, it goes over essential topics in applied economics, including selection bias, instrumental variables, structural vs. reduced-form analysis, dynamic discrete choice models, and unobserved heterogeneity. During the term, students work with different data sets.

0101	Sergio Urzua	Seats (Total: 10)
	MW 9:00am - 10:15am	TYD 2111

ECON799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON808 **Workshop on Macroeconomics, International Macroeconomics and International Finance; Workshop in Applied Economics**

Credits: 2 Grading Method: Sat-Fail, Audit

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0101	Boragan Aruoba	Seats (Total: 40)
	W 3:30pm - 5:30pm	TYD 0101

ECON828 **Workshop in Econometrics**

Credits: 2 Grading Method: Sat-Fail, Audit

Current research in econometrics. Topics drawn from theoretical and applied econometrics. Special topics include: maximum likelihood and generalized method of moments estimation of linear and non-linear models, analysis of stationary and non-stationary time series, cross section time series estimation, spatial estimation mehtods, Bayesian methods, semi-and non-parametic methods, rational expectations models, numerical methods, and various applications.

0101	John Chao	Seats (Total: 20)
	M 3:30pm - 6:00pm	Location: TBA

ECON848 **Workshop in International Trade, Institutional Economics and Political Economy**

Credits: 2 Grading Method: Sat-Fail, Audit

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0101	Peter Murrell	Seats (Total: 20)
	M 3:30pm - 5:30pm	TYD 0102

ECON868 **Workshop in Industrial Organization, Microeconomic Theory and Behavioral and Experimental Economics**

Credits: 2 Grading Method: Sat-Fail, Audit

Workshops designed to provide a structured environment for our faculty and graduate students to meet regularly to discuss and present their research ideas.

0101	Yusuf Masatlioglu	Seats (Total: 40)
	Tu 3:30pm - 5:30pm	TYD 0102

ECON878 **Workshop in Development, Labor and Public Economics**

Credits: 2 Grading Method: Sat-Fail, Audit

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0101	Jessica Goldberg	Seats (Total: 40)
	Th 3:30pm - 5:30pm	TYD 1101

ECON898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

ECON899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDCP Education Counseling and Personnel Services Fall 2022

EDCP108C **College and Career Advancement: Concepts and Skills; Career Clarification - Choosing Your Major and Career**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with 60 credits or less. Figuring out what to study and work on is a hard problem, and one that you will be trying to solve multiple times in your life as you grow and evolve. The "Choosing Your Major and Career" course is a guided self-discovery experience where you learn more about yourself, the fields you are interested in, and the supporting tools and frameworks that you can come back to throughout your life when evaluating your professional goals. During the semester, you will engage with course content, work with your classmates, and complete projects and reflections to gain a deeper understanding of what drives you, what you are good at, and which majors and careers align with those interests and skills. You will also participate in three one-on-one coaching sessions. This course is one of the offerings of the Intentional Life Lab.

0101	Sarah Wolek, Jessica Roffe M 2:00pm - 2:50pm	Seats (Total: 20) SQH 1121	
FCW1	Allynn Powell Th 3:00pm - 3:50pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ONLINE ONLINE	Discussion

EDCP108I **College and Career Advancement: Concepts and Skills; Academic Transitions to Internships**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Knowledge and skills designed to enhance college as a learning experience or preparation for life.

Restricted to students with less than 105 cumulative credits. Recommended for students who have never had an internship and are actively searching for one. Students participating in this course will engage in the full experience of searching for an internship Course registration is closed to graduating seniors.

0101	Erin Callahan **Meets August 29, 2022 - October 14, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0201	Jenny Sak **Meets August 29, 2022 - October 14, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0301	Erin Callahan **Meets October 24, 2022 - December 11, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE
0401	Kevin Kenneally **Meets October 24, 2022 - December 11, 2022** Class time/details on ELMs	Seats (Total: 40) ONLINE

0701	Olivia Rosenburg **Meets August 29, 2022 - October 14, 2022** Class time/details on ELMs *This section is restricted to CMNS students only.*	Seats (Total: 30) ONLINE
0801	Julie Randolph **Meets August 29, 2022 - October 14, 2022** Class time/details on ELMs *Restricted to CIVICUS students only.*	Seats (Total: 30) ONLINE
0901	Caroline Bodnar **Meets August 29, 2022 - October 14, 2022** Class time/details on ELMs *Restricted to College of Arts & Humanities students only.*	Seats (Total: 30) ONLINE

EDCP210 **Peer Counseling Skills and Mental Health Advocacy**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must not have completed EDCP310; and must not have completed PSYC433. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Introduction to core helping skills in peer counseling settings and three predominant theoretical approaches used in the counseling field (humanistic, psychodynamic, cognitive-behavioral). The course also explores mental health stigma and advocacy. Students will build an understanding of the practical application of underlying principles and theory in counseling and the helping professions, while exploring their own, and societal, biases, assumptions, and attitudes toward mental health.

0101	Ami Patel MW 4:30pm - 5:45pm	Seats (Total: 18) JMZ 0120
0201	Ilcia Hernandez TuTh 2:00pm - 3:15pm	Seats (Total: 18) PLS 1117
0301	Daniel Moore TuTh 10:00am - 11:15am	Seats (Total: 18) ASY 3217
0401	Manuel Teran Hernandez MW 10:00am - 11:15am	Seats (Total: 18) EDU 2101

0501	Anjali Sheth TuTh 11:00am - 12:15pm	Seats (Total: 18) EDU 2102
0601	Rabia Brown MW 11:00am - 12:15pm	Seats (Total: 18) EDU 2102

EDCP230 **The Science and Practice of Happiness and Psychological Well-Being**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, DSSP

An introduction to theory and research on positive psychology, subjective well-being, and the psychology of happiness. This will include examination of hedonic and eudaimonic models of well-being and sociocultural understandings of happiness, together with how it relates to health, relationships, money, religion, work, and social media. Students will also explore common misconceptions and myths about happiness and well-being and will engage in a variety of activities designed to deepen their understanding of happiness in their own lives and broader societal trends related to well-being.

0101	Hailey Fleece TuTh 10:00am - 11:15am	Seats (Total: 20) EDU 3233
0201	Shihong Lin MW 1:00pm - 2:15pm	Seats (Total: 20) TWS 1313
0301	Amber Pasha MW 4:00pm - 5:15pm	Seats (Total: 20) JMZ 0208

EDCP298 **Special Problems in Counseling and Personnel Services**

Credits: 1-3 Grading Method: Regular, Pass-Fail

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP298Z **Special Problems in Counseling and Personnel Services; British Life and Society in a Cross-Cultural Context**

Credits: 3 Grading Method: Regular, Pass-Fail

Individual instruction in special problems related to counseling, student leadership, and college student development.

Contact department for information to register for this course.

EDCP386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department; and sophomore standing or higher.

Special EDCP form required.

Contact department for information to register for this course.

EDCP489 **Field Experiences in Counseling and Personnel Services**

(Perm req)

Credits: 1-4 Grading Method: Regular General Education: DVUP

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDCP498 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-3 Grading Method: Regular

Available only to major students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

EDCP610 **Professional Orientation**

Credits: 3 Grading Method: Regular, Audit

Survey of knowledge base and practices in counseling and personnel services specializations, professional ethics, credentialling relevant legislation, current issues.

For Student Affairs students only.

0201	Natasha Mitchell M 4:15pm - 7:00pm *Limited to School Counseling Students.*	Seats (Total: 20) EDU 1315

EDCP614 **Counseling Skills: Introduction to Practicum**

Credits: 3 Grading Method: Regular, Audit

Corequisite: EDCP616.

Development and utilization of counseling skills.

0101	Jorinna Tran W 1:00pm - 3:50pm	Seats (Total: 20) EDU 2102
0201	Jorinna Tran W 1:00pm - 3:50pm	Seats (Total: 10) EDU 2101

EDCP615 **Counseling I: Appraisal**

Credits: 3

Grading Method: Regular, Audit

Corequisite: EDCP618. Restriction: Must be in a major within EDUC-Counseling, Higher Education and Special Education department.

Collection and interpretation of appraisal data, synthesis of data through case study procedures. Development of interview skills.

0101	JeVivvien Ray	Seats (Total: 11)
	Th 4:15pm - 7:00pm	VMH 1101

EDCP616 Counseling II: Theory and Practice

Credits: 3

Grading Method: Regular, Audit

Corequisite: EDCP614.

Counseling theories and the practices which stem from such theories.

For EDCP majors only.

0101	Alexandria Travis	Seats (Total: 26)
	Tu 4:15pm - 7:00pm	JMZ 0125
	Limited to Students in the Masters Program.	

EDCP617 Group Counseling

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDCP616.

A survey of theory, research and practice of group counseling and psychotherapy, with an introduction to growth groups and the laboratory approach, therapeutic factors in groups, composition of therapeutic groups, problem clients, therapeutic techniques, research methods, theories, ethics and training of group counselors and therapists.

0101	Cixin Wang	Seats (Total: 10)
	M 9:30am - 12:15pm	JMZ 1120

EDCP619B Practicum in Counseling

Credits: 3

Grading Method: Regular, Audit

Sequence of supervised counseling experiences of increasing complexity. Limited to eight applicants in advance. Two hours class plus laboratory.

0101	Carlton Green	Seats (Total: 4)
	Tu 1:00pm - 3:45pm Contact instructor or department for details.	ARC 1123
	Restricted to second-year Student Affairs masters students approved for Counseling Practicum participation.	

EDCP622 **Human Development in the Counseling Context**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP789X or EDCP622. Formerly: EDCP789X.

An examination of the development of individuals over the lifespan. A focus on human development theories and the ways in which those theories are utilized within the counseling process to promote optimal development of individuals and families across the lifespan.

0101	Paul Gold	Seats (Total: 20)
	Th 4:15pm - 7:00pm	ONLINE

EDCP635 **School Consultation I**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the School Counseling program; or must be in the School Psychology program; or permission of instructor.

Theory and practice of consultation services in the school setting. Understanding of school culture. Introduction to problem solving model of case consultation for assessment and remediation of learning and behavior problems in the classroom. Practicum experience.

0101	Katie Burkhouse	Seats (Total: 10)
	Tu 4:30pm - 7:15pm	Location: TBA

EDCP640 **School Psychology Seminar: Overview of the Specialty**

Credits: 1-2 Grading Method: Regular, Audit

Restriction: Must be in the School Psychology program; or permission of instructor.

Overviews the specialty of school psychology, including history of the specialty, roles and functions of school psychologists, and current professional issues related to the specialty.

0101	Cynthia Schulmeyer	Seats (Total: 10)
	M 4:30pm - 7:15pm	Location: TBA

EDCP641 **School Psychology Seminar: Professional Ethics**

Credits: 1-2 Grading Method: Regular, Audit

Restriction: Must be in the School Psychology program; or permission of instructor.

Overviews ethical issues in the specialty of school psychology.

0101	Cynthia Schulmeyer M 4:30pm - 7:15pm	Seats (Total: 10) Location: TBA

EDCP652 Research in Counseling

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the School Counseling program. Credit only granted for: EDCP652 or EDCP789Y. Formerly: EDCP789Y.

An exploration of basic and applied research, program evaluation, and associated measurement and evaluation skills crucial for professional school counselors.

0101	Paul Gold W 4:15pm - 7:00pm	Seats (Total: 15) ONLINE

EDCP682 Counseling Psychology Didactic Practicum in Group Interventions

Credits: 3 Grading Method: Sat-Fail

Prerequisite: For Counseling Psychology majors only. Cross-listed with: PSYC682. Formerly: EDCP718.

In depth examination of theories and techniques of group interventions; supervised experience in group counseling.

0101	Pepper Phillips Th 2:00pm - 5:00pm	Seats (Total: 5) SHM 2122

EDCP685 Counseling Psychology Didactic Practicum in Counseling Supervision

Credits: 3 Grading Method: Sat-Fail

Prerequisite: For Counseling Psychology majors only. Cross-listed with: PSYC685. Formerly: EDCP745.

In depth examinatin of theories and techniques of counseling supervision, supervised experience in the process of supervising counselors.

0101	Delida Sanchez W 11:00am - 1:45pm	Seats (Total: 10) JMZ 0125

EDCP695 Ethical and Professional Issues in Counseling Psychology

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must be in the Counseling Psychology program. Also offered as: PSYC695. Credit only granted for: EDCP669, EDCP688, EDCP695, PSYC688, or PSYC695. Formerly: EDCP669 and EDCP688.

Exploration of ethical and professional issues in Counseling Psychology.

0101	Roger Worthington Tu 11:00am - 2:00pm	Seats (Total: 10) VMH 1107

EDCP697 Multicultural Issues in Counseling Psychology

Credits: 3 Grading Method: Regular

Prerequisite: Only open to Counseling Psychology majors. Credit only granted for: EDCP697, EDCP699, or PSYC697. Formerly: EDCP699.

Exploration of knowledge, attitudes and skills for providing counseling and psychological services to culturally diverse populations.

0101	Richard Shin W 2:00pm - 5:00pm	Seats (Total: 15) JMZ 2125

EDCP698 Advanced Didactic Practicum in Counseling Psychology

Credits: 3 Grading Method: Regular, Audit

In depth examination of approaches to or theories abouth intervention, and supervised experience in the application of those approaches or theories. Each practicum focuses on a particular approach, e.g., psychodynamic, cognitive-behavioral, cross-cultural.

0101	Roger Worthington Th 1:00pm - 4:00pm *Limited to Counseling Psychology Students*	Seats (Total: 10) Location: TBA

EDCP738 Practicum in Child Assessment

Credits: 3 Grading Method: Regular, Audit

Administration of complete test batteries to children; supervision of initial interviews; test administration and scoring; interpretation and synthesis of test battery and interview material; the psychological report; verbal interpretation of test results; and recommendations. Taken initially with EDCP 633; repeated with EDCP 634 in the subsequent semester.

0101	Megan Vaganek W 5:45pm - 8:45pm	Seats (Total: 7) Location: TBA

EDCP741 **Multicultural Practice in Student Affairs: Self, Education, and Society**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCP771. Credit only granted for: EDCP741 or EDCP789Z. Formerly: EDCP789Z.

Develop knowledge and skills in the area of multicultural practice in student affairs through the examination of oppression, power, and privilege and how these dynamics impact individuals, educational institutions, and societies.

0101	Bridget Kelly W 4:30pm - 7:15pm	Seats (Total: 20) EDU 1315

EDCP743 **Developmental Psychopathology**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Counseling and Personnel Services (Doctoral) program; or permission of instructor. Credit only granted for: EDCP789Q or EDCP743. Formerly: EDCP789Q.

Explore psychopathology from a developmental perspective and with an emphasis on affective bases of behavior

0101	Hedwig Teglasi W 9:30am - 12:15pm	Seats (Total: 10) SQH 1111

EDCP746 **Clinical Supervision of Pupil Personnel Services**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Advanced Doctoral Students Only. Restriction: Permission of instructor.

Supervision of role of psychologists and counselors in school settings; applied skills in supervision of services.

0101	Annie Goldthrite Tu 5:15pm - 8:00pm	Seats (Total: 10) JMZ 3122

EDCP772 **Research in Student Affairs**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCP656; or permission of instructor. Restriction: Must be in the College Student Personnel program.

Research designs and approaches to research in student development and higher education. Development of research for research competency or dissertation proposal.

0101	Julie Park	Seats (Total: 10)
	Th 1:00pm - 3:45pm	ARC 1127

EDCP775 **Facilitating Student Learning in Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP771; or permission of EDUC-Counseling, Higher Education and Special Education department. Restriction: Must be in Counseling and Personnel Services (Doctoral) program.

Application of selected models of college student development, learning styles, and related models of instruction to the assessment of characteristics and the design of learning environments.

0101	Candace Moore	Seats (Total: 20)
	Tu 4:30pm - 7:15pm	EDU 1121

EDCP789R **Advanced Topics in Counseling and Personnel Services; College Teaching Seminar**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

0101	Michelle Espino	Seats (Total: 5)
	Contact instructor or department for details.	
5101	Candace Moore	Seats (Total: 2)
	Contact instructor or department for details.	

EDCP798 **Special Problems in Counseling and Personnel Services**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

Contact department for information to register for this course.

EDCP798A **Special Problems in Counseling and Personnel Services; Research Design and Proposal Writing Seminar**

Credits: 3 Grading Method: Regular, Audit

Master's AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number.

0101	Michelle Espino	Seats (Total: 15)
	Th 9:00am - 11:45am	ARC 1127

EDCP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Contact department for information to register for this course.

EDCP870 **Professional Issues Seminar**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP656 or EDCP870. Formerly: EDCP656.

Examination of issues that bear on professional issues such as ethics, inter-professional relationships and research.

For Student Affairs Doctoral Students Only.

0101	Candace Moore Th 10:00am - 12:45pm	Seats (Total: 5) SQH 1125

EDCP871 **Student Affairs Doctoral Capstone Seminar**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDCP870; or permission of instructor. Restriction: Must be in the College Student Personnel program. Credit only granted for: EDCP789I or EDCP871. Formerly: EDCP789I.

Broadening perspectives on issues in student affairs and higher education by exploring the multiple roles and responsibilities of campus administrators and faculty members.

0101	James McShay, Patty Perillo W 1:00pm - 3:45pm	Seats (Total: 10) MIT 2108

EDCP879 **Internship in School Counseling**

Credits: 4-8 Grading Method: Regular, Audit, Sat-Fail

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Jessica McKechnie M 7:00pm - 9:45pm	Seats (Total: 15) EDU 2102

EDCP888 **Apprenticeship in Counseling and Personnel Services**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

EDCP888A **Apprenticeship in Counseling and Personnel Services; College Student Personnel**

Credits: 3 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Kristan Skendall, Marsha Guenzler-Stevens Contact instructor or department for details.	Seats (Total: 10)

EDCP888C **Apprenticeship in Counseling and Personnel Services; School Psychology**

Credits: 1-8 Grading Method: Regular

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Stephanie Wolf Tu 9:00am - 12:00pm	Seats (Total: 15) Location: TBA
0201	Hedwig Teglasi W 2:00pm - 4:45pm	Seats (Total: 15) LEF 1171
3901	Cixin Wang Contact instructor or department for details.	Seats (Total: 10)

EDCP889 **Internship in Counseling and Personnel Services; Internship in Counseling and Personnel Services**

Credits: 1-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDCP889C **Internship in Counseling and Personnel Services**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

0101	Jioni Lewis Contact instructor or department for details.	Seats (Total: 5)

EDCP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDCP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDHD Education, Human Development Fall 2022

EDHD200 **Paradigms and Perspectives in Human Development**

Credits: 3 Grading Method: Regular

Restriction: Must have 45 or fewer credits; or must be in the Human Development program or Human Development minor.

An introduction to the paradigms and perspectives that guide the study of human development across the lifespan in cognitive, social, physical and emotional domains. Topics of study include overlying principles, concepts, assumptions, theoretical frameworks, and research methods that influence ways in which development is conceptualized. The course is designed to provide insight into major questions of the day in human development and how these prevailing perspectives have evolved over time. This course will also help students understand how knowledge of theory and research is translated into practice in a variety of professional settings.

0101	Lucas Butler Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) SQH 1101 ONLINE
0201	Rachel Romeo TuTh 12:30pm - 1:45pm	Seats (Total: 40) EDU 1107
0301	Jenna Alton TuTh 8:00am - 9:15am	Seats (Total: 40) EDU 1121

EDHD201 **Learning How to Learn**

Credits: 3 Grading Method: Regular General Education: DSHS

Immerses students in the theoretical and empirical study of learning by engaging them in orchestrated experiences and activities drawn directly from the disciplinary research. Students achieve deep understanding of their own learning, as well as the means of enhancing that learning both in school and out-of-school contexts.

0101	Juliana Van Meerten, Lauren Trakhman MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 EDU 2119	 Lab
0102	Juliana Van Meerten, Lauren Trakhman MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 30) ESJ 2309 HBK 0105	 Lab
0201	Jannah Fusenig TuTh 9:30am - 10:45am	Seats (Total: 30) ESJ B0320	
FC01	Jannah Fusenig TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 2120	

EDHD210 **Foundations of Early Childhood Education**

(Perm req)

Credits: 3 Grading Method: Regular CORE: HO General Education: DSHS

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students explore historical and current research in early childhood education, primary models of curriculum and pedagogy in the field, and the relationship between critical aspects of young children's development and the creation of inclusive learning opportunities for all children, including children at risk. The concept of developmentally appropriate practice and its application across different developmental levels and early childhood classrooms will be introduced and connected with discussion in EDHD220 and EDSP211. Students examine issues in developing and implementing high quality early childhood education experiences for young children with and without disabilities, including the influence of family, culture, and community, the needs of children at risk (e.g., poverty, immigrant status, English Language Learners), and the role of assessment in early learning.

0101	Lisa Davis Th 1:00pm - 3:45pm	Seats (Total: 25) EDU 3233	

EDHD220 **Exploring Early Childhood General and Special Education**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Students who are considering a career in education will consider information about the teaching profession. Students reflect on their personal strengths, identify areas of growth, and examine their predisposition to work with young children with and without disabilities. They will discuss the nature of teaching, the moral and philosophic underpinnings that influenced their decision to enter into the teaching professions, as well as the roles and responsibilities of teachers and the characteristics and qualities for effective teachers (teaching styles and teacher's primary role in the classroom).

0101	Randi Albertsen W 2:00pm - 4:00pm M 8:00am - 12:00pm	Seats (Total: 6) JMZ 3205 Location: TBA	Lab
0102	Randi Albertsen W 2:00pm - 4:00pm Tu 8:00am - 12:00pm	Seats (Total: 7) JMZ 3205 Location: TBA	Lab
0103	Randi Albertsen W 2:00pm - 4:00pm Th 8:00am - 12:00pm	Seats (Total: 6) JMZ 3205 Location: TBA	Lab
0104	Randi Albertsen W 2:00pm - 4:00pm F 8:00am - 12:00pm	Seats (Total: 6) JMZ 3205 Location: TBA	Lab

EDHD228 **Research Experiences in Human Development**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Provides students with hands-on participation in faculty-supervised laboratory research activities in the Department of Human Development & Quantitative Methodology. Students will learn about the purpose of scientific research and engage in activities that advance their knowledge and skills with regard to its ethical practice.

Contact department for information to register for this course.

EDHD230 **Human Development and Societal Institutions**

Credits: 3 Grading Method: Regular CORE: SB, D General Education: DSHS, DVUP

Development of the individual in the context of relationships with the formal and informal institutions of society. An examination of various aspects of development from the broad perspective of the social sciences.

0201	Joshua Jaffe MW 12:30pm - 1:45pm	Seats (Total: 40) ASY 3203
FC01	Joshua Jaffe MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection*	Seats (Total: 18) SQH 1103

EDHD306 **Research Methods in Human Development**

Credits: 3 Grading Method: Regular General Education: FSAR

Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

0101	Richard Prather TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 1107
0201	Richard Prather TuTh 11:00am - 12:15pm	Seats (Total: 40) EDU 1107
0301	Eric Schoute W 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) EDU 2119 ONLINE

EDHD310 Your Brain on Education: The Neuroscience of Learning and Development

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Prerequisite: PSYC100.

Investigation linking research in the brain science of learning and development, including the neural basis of academic skills, to achievement, disability, and broader applications to classroom learning. This course will focus on areas of education including language (spoken and written), conceptual change, numerical/quantitative processing, and social cognition as well as burgeoning areas of neuroscientific research in general cognitive processes such as attention, memory, and executive processing. These topics will be discussed with respect to typical and atypical development with some focus on developmental disabilities including autism, specific language impairment, reading and math impairment, and attention deficit disorders among others. This course will focus on both the theoretical perspectives and pragmatic issues of how evidence regarding brain development can or may be translated into useful or misleading information for educators, professionals, and parents/guardians of our children.

0101	Donald Bolger TuTh 11:00am - 12:15pm	Seats (Total: 50) HJP 2242

EDHD314 Reading in the Early Childhood Classroom

Credits: 3 | Grading Method: Regular

Prerequisite: EDHD210, EDHD220, and EDSP211. Corequisite: EDHD425; and corequisite: EDHD419 or EDSP420. Restriction: Must be enrolled in Professional Early Childhood/Early Childhood Special Education Program; and minimum cumulative GPA of 2.75.

Early childhood students introduced to current research/methods on teaching language arts. Focus on development of linguistic and cognitive processes in emergent literacy and beginning reading and writing. Application to models for the instruction and assessment of reading/writing in preschool-aged children. Also includes material on classroom-based interventions for young children at risk of reading failure due to learning difficulties. Includes Field Experiences.

Restricted to major code 0822P.

0101	Donald Bolger Th 1:00pm - 3:00pm Contact instructor or department for details.	Seats (Total: 35) SQH 1101

EDHD319 Selected Topics in Human Development

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human development in relation to contemporary culture.

Contact department for information to register for this course.

EDHD320 Human Development Through the Life Span

Credits: 3 Grading Method: Regular, Audit General Education: DSHS

Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.

0101	Rachel Ghosh TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 1121
0201	Alexis Williams Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE
0301	Jennie Lee-Kim Th 12:30pm - 1:45pm Class time/details on ELMs *Restricted to students in the Human Development major and minor programs.*	Seats (Total: 38) EDU 3315 ONLINE
0401	Min Wang W 12:30pm - 3:15pm	Seats (Total: 40) EDU 1121
0501	Megan Hurley MW 11:00am - 12:15pm	Seats (Total: 40) ONLINE

0601	Olga Walker	Seats (Total: 40)
	MW 12:30pm - 1:45pm	ONLINE

EDHD322 **The Young Child as Mathematician**

Credits: 3 Grading Method: Regular

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP 430, EDSP 433; OR Track 2: Must have completed EDHD415, EDHD 424. Corequisite: EDHD323, EDSP321, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and senior standing or higher; and minimum cumulative GPA of 2.75.

Provides a theoretical and instructional framework for mathematics instruction in early childhood classrooms. Development of understanding of early childhood mathematics that emphasizes how and in what environment young children learn mathematics. Current thinking about both content and instructional strategies for mathematics curriculum, including identification and review of standards and expectations for learning outcomes for all children. Assessment strategies for evaluating all children will be addressed. Includes Phase 1 Field Experience.

Restricted to major code 0822P.

0101	Geetha Ramani	Seats (Total: 35)
	W 2:00pm - 4:00pm Contact instructor or department for details.	EDU 2121

EDHD323 **Children Study their World**

Credits: 3 Grading Method: Regular

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430, EDSP433; or Track 2: Must have completed EDHD415, EDHD424. Corequisite: EDHD322, EDSP417, EDHD441, EDHD443, EDHD442, EDHD444, and EDSP321. Restriction: Must be in the Professional Early Childhood/Early Childhood Special Education program; and senior standing or higher; and minimum cumulative GPA of 2.75.

Provides theoretical and instructional framework for social studies instruction in inclusive early childhood classrooms. Course will reflect current thinking about content and instructional strategies for social studies curriculum; identification and review of standards/expectations for learning outcomes for all children; assessment strategies for evaluating of social studies objectives; use of data driven instruction to support all children; observation of children's understanding of their social world in field placements; opportunities to explore these understandings through interviews with children and the implementation of activities. Includes Phase 1 Field Experience.

Restricted to major code 0822P.

0101	Elisa Klein	Seats (Total: 35)
	W 11:00am - 1:00pm Contact instructor or department for details.	EDU 1107

EDHD386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department; and junior standing or higher.

Contact department for information to register for this course.

EDHD390 **Career Paths and Internship Preparation in Human Development**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Human Development major.

Prepares degree candidates in Human Development for career paths in the field including initial job seeking skills, knowledge necessary for entry into various professions and preparation for the program internship requirement

0101	Jennie Lee-Kim	Seats (Total: 20)
	Tu 2:00pm - 2:50pm Class time/details on ELMs	EDU 1315 ONLINE
	Restricted to students in the Human Development major.	

EDHD402 **Social Development**

Credits: 3

Grading Method: Regular, Pass-Fail

Recommended: EDHD411.

Social Development. Critical concepts and ideas of the study of child and adolescent social development. Focus on changes in interpersonal relationships, emotions, achievement-related behavior and competence, and functioning within the broader social context.

0101	Angelica Alonso	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	ARC 1105

EDHD411 **Child Growth and Development**

Credits: 3

Grading Method: Regular, Audit

General Education: DSHS

Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

0201	Christina Edmonds	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	ESJ 2212
	Restricted to students in the Human Development major and Human Development minor.	

0301	Christina Edmonds TuTh 12:30pm - 1:45pm	Seats (Total: 50) ESJ 2309
	Restricted to major codes: 0808L, 0808P, 0802L, 0802P.	

EDHD412 **Infant Development**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Infant development across domains, including perceptual, motor, cognitive, language, social and emotional functioning from pre-natal through third year of life.

0101	Natasha Cabrera W 9:30am - 12:15pm	Seats (Total: 40) EDU 1121

EDHD413 **Adolescent Development**

Credits: 3 | Grading Method: Regular | General Education: DSHS

Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

0101	Olga Walker M 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE
0201	Olga Walker M 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 40) EDU 1107 ONLINE

EDHD414 **Development of the Scientific Mind Across the Lifespan**

Credits: 3 | Grading Method: Regular, Pass-Fail

Recommended: EDHD320.

Study of the educational, cognitive, social, and cultural factors that underlie the development of the scientific mind across the lifespan.

0101	Doug Lombardi MW 2:00pm - 3:15pm	Seats (Total: 40) EDU 2119

EDHD425 **Language Development and Reading Acquisition**

Credits: 3 | Grading Method: Regular, Audit

This course focuses on young children's language development and the relationship between language and reading acquisition. Students will learn: concepts central to language development; language achievements at different ages; concepts of emergent literacy; models of reading acquisition and skilled reading.

0101	Min Wang	Seats (Total: 35)
	Tu 1:00pm - 3:45pm	EDU 3315
	Restricted to major code 0822P.	

EDHD426 Cognitive and Motivational Literacy Content

Credits: 3 Grading Method: Regular

Students preparing for secondary teaching will learn about the cognitive and motivational aspects of literacy and learning from text for the content areas of literature, science, history and mathematics. Different evidenced-based literacy approaches appropriate for content learning are presented. Characteristics of learning environments that enable students to engage productively with diverse texts, disciplinary tasks, and technological resources in content areas are identified.

Restriction: Must be a Secondary Education major or Human Development major.

0101	Daphne Williams	Seats (Total: 38)
	W 5:30pm - 8:15pm	EDU 3315

EDHD441 Data Driven Decision Making in EC/ECSE

Credits: 1 Grading Method: Regular

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP433 or TRACK 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP321, EDSP417, EDHD442, EDHD443, and EDHD444.

Students will be exposed to formative (e.g., classroom based, ongoing) and summative (e.g., standardized testing) assessments. Students will collect and analyze formative assessment data from their internship classrooms as the bases of planning and delivering instruction to meet the diverse needs of all learners. They will also analyze standardized assessment data to gain an understanding of measures used to determined cross-school and cross-teacher effectiveness. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets October 17, 2022 - November 7, 2022	
	M 10:00am - 12:00pm	EDU 1121
	Contact instructor or department for details.	

EDHD442 Interventions for Children with Behavioral Challenges

Credits: 1 Grading Method: Regular

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP 433; or TRACK 2: Must have completed EDHD415 and EDHD 424. Corequisite: EDSP321, EDSP417, EDHD322, EDHD323, EDHD441, EDHD443, and EDHD444.

Students will expand knowledge of and develop skills to address challenging behaviors in inclusive early childhood classrooms. Students examine the causes underlying challenging behaviors during the early childhood years, and identify appropriate resources and support services for working with families to develop a unified approach when responding to behavioral challenges. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets September 12, 2022 - October 3, 2022	
	M 10:00am - 12:00pm Contact instructor or department for details.	EDU 1121

EDHD443 Interventions for Children with Social and Communication Challenges

Credits: 1 Grading Method: Regular

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and TRACK I: Must have completed EDSP430 and EDSP 433; or TRACK 2: Must have completed EDHD415 and EDHD 424. Corequisite: EDHD322, EDSP321, EDSP417, EDHD323, EDHD441, EDHD442, and EDHD444.

Students will learn about the characteristics of children with autism spectrum disorder, pervasive developmental disorder, social communication disorder, and other related challenges and will be equipped to meet the needs of this group of children in the early childhood classroom. The utilization of Universal Design for Learning (UDL), Response to Intervention (RTI) and other early childhood special education approaches, as they apply to this specific group of children, will be addressed. Interventions designed to improve the functioning of children with autism spectrum disorders and related disorders will be reviewed. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Amanda Schwartz	Seats (Total: 35)
	Meets November 14, 2022 - December 12, 2022	
	M 10:00am - 12:00pm Contact instructor or department for details.	EDU 1121

EDHD444 Action Research in EC/ECSE

Credits: 1 Grading Method: Regular

Prerequisite: Minimum grade of C- in EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDHD441, EDHD442, EDHD443, EDSP417, and EDSP321.

Students will become familiar with the EC/ECSE research process, literature and how teachers use action research to improve pedagogy and the experiences of children in classrooms or home-based contexts. Students will utilize this knowledge, as well as either a goal in an Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP) or School Improvement Plan (SIP), to develop an action research study commenced during the following semester. Includes Phase I field experience.

Restricted to major code 0822P.

0101	Stephanie Varner	Seats (Total: 35)
	Meets September 12, 2022 - December 5, 2022	
	M 4:15pm - 6:15pm	TYD 2111
	Contact instructor or department for details.	

EDHD460 **Educational Psychology**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS

Prerequisite: PSYC100; or permission of EDUC-Human Development and Quantitative Methodology department.

Application of psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings.

0101	Juliana Van Meerten	Seats (Total: 38)
	MW 2:00pm - 3:15pm	EDU 3315

EDHD489 **Field Experiences in Human Development**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Planned field experience (internship or research-based activities) related to Human Development. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHD498 **Special Problems in Education**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHD600 **Introduction to Human Development and Child Study**

Credits: 3 | Grading Method: Regular, Audit, Sat-Fail

An overview of the multidisciplinary, scientific principles which describe human development and behavior and an application of these principles in an analysis of a behavioral record. Techniques of observation, recording, and analysis of human behavior. Emphasis on critiquing and applying research findings.

This course is restricted to students enrolled in the off-campus M.Ed. in Human Development program.

Contact department for information to register for this course.

EDHD617 **Achievement Motivation in Adolescence**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHD779W or EDHD617. Formerly: EDHD779W.

Study of different aspects of motivation and how they develop in the secondary school years. Focus on how different instructional practices influence motivation and design of various strategies for improving students motivation.

Contact department for information to register for this course.

EDHD629 **Developmental Science Seminar and Colloquium**

Credits: 1 Grading Method: Regular, Audit

A seminar and colloquia series featuring speakers from the department, the college, the university, and other universities and institutions from across the world that aims to cover issues pertaining to contemporary theory and research in human development, child development, and developmental science. The seminar format is a weekly colloquia series, along with discussion sessions related to a range of developmental science topics.

0101	Lucas Butler	Seats (Total: 20)
	Meets August 29, 2022 - December 12, 2022	
	W 11:15am - 1:45pm	EDU 2119

EDHD690 **Theoretical Foundations of Human Development**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Theoretical foundations in the field of human development with a focus on connections between the major theoretical paradigms in the literature and current research in developmental science.

0101	Lucas Butler	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	EDU 2102

EDHD692 **Cognitive Basis of Instruction**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Human Development and Quantitative Methodology department.

Psychological and educational research literature on human cognition, especially as applied to learning and teaching in classroom settings.

This course is restricted to students enrolled in the off-campus M.Ed. in Human Development program.

Contact department for information to register for this course.

EDHD718 **Apprenticeship in College Teaching; Apprenticeship in College Teaching**

(Perm req)

Credits: 1 Grading Method: Regular

For graduate students teaching autonomously for the first, second, or third tiem at the University of Maryland, College Park; not intended for teaching assistants. This course provides graduate student teachers with a set of structured experiences that foster professional growth and development in the role of college instructor. Includes seminars on the scholarship of college teaching and principles of optimal college classroom environments, peer and faculty in-class observations of teaching, and guided reflective analysis of experience in the classroom.

0101	Jennie Lee-Kim	Seats (Total: 10)
	F 1:00pm - 3:30pm	EDU 3236

EDHD721 **Cognitive Development and Learning: An Introduction**

Credits: 3 Grading Method: Regular, Audit

Introductory survey into contemporary theory and research in cognitive development; applications to classroom learning.

0101	Geetha Ramani	Seats (Total: 20)
	M 1:00pm - 3:45pm	EDU 2101

EDHD722 **Learning Theory and the Educative Process**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDHD721; or permission of EDUC-Human Development and Quantitative Methodology department.

Advanced study of theories, issues and research in several categories of cognition and learning applied to education and the helping professions.

Contact department for information to register for this course.

EDHD760 **Advanced Educational Psychology**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Prior course in educational psychology, learning, or cognition; or permission of EDUC-Human Development and Quantitative Methodology department.

Appplication of psychology to learning processes and theories. Individual differences, measurement, motivation, and intelligence.

0101	Patricia Alexander	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 2101

EDHD789 **Internship in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experience in one or more human service agencies in the community.

Contact department for information to register for this course.

EDHD798 **Laboratory in Human Development**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Independent research supervised by an instructor in a research setting.

Limited to human development majors.

Contact department for information to register for this course.

EDHD799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for master's thesis.

Limited to human development majors.

Contact department for information to register for this course.

EDHD888 **Apprenticeship in Human Development Research**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprenticeship in Human Development research.

Contact department for information to register for this course.

EDHD889 **Practicum in Human Development**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Field experience in applied human development at a professional level of competence in a particular role with appropriate supervision.

Contact department for information to register for this course.

EDHD898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDHD899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to 12-18 hours for a Ph.D. dissertation.

Limited to human development majors.

Contact department for information to register for this course.

EDHI Education Leadership, Higher Ed and International Ed Fall 2022

EDHI489 **Field Experiences in Education**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

EDHI498 **Special Problems in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to students who have definite plans for individual study of approved problems.

Contact department for information to register for this course.

EDHI605 **Comparative Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI605, EDPL605, or EDPS605. Formerly: EDPL605.

Analyzes and compares leading issues in education in various countries of the world, particularly as they relate to crucial problems in American education.

0101	Zeena Zakharia	Seats (Total: 20)
	Th 4:15pm - 7:00pm	EDU 3315
	Class time/details on ELMs	ONLINE

EDHI606 **Political Economy of Education in a Global Context**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI606, EDPL606, or EDPS606. Formerly: EDPL606.

Examination of alternative economics perspectives and their implications for education policy and practice internationally, from local to global levels. The connection of education to issues of development, inequality, poverty, gender, and race will be discussed.

0101	Steven Klees Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3236 ONLINE

EDHI650 **Professional Seminar in Higher and Adult Education**

Credits: 3 Grading Method: Sat-Fail

Credit only granted for: EDHI650, EDPL650, or EDPS650. Formerly: EDPL650.

Introduction to higher and adult education as a field of study. Origins, current dimensions and problems, and emerging issues. Field trips to state and national capitols, and involvement in professional conferences.

0101	Sharon Fries-Britt Th 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDHI652 **Higher Education in American Society**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI652, EDPL652, or EDPS652. Formerly: EDPL652.

Examines the concepts of academic freedom, corporate autonomy and institutional accountability with emphasis on twentieth century relationships between higher education and government in the United States.

0101	Steffon Gray M 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 15) EDU 2101 ONLINE

EDHI665 **College Access and Choice**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI665 or EDHI788L. Formerly: EDHI788L.

Examines the college-going process, how and why some students successfully navigate it, and what policies and programs can help students from disadvantaged or underrepresented backgrounds overcome barriers to college access and entry.

0101	Russell McClain, Liz Wasden Tu 7:00pm - 9:45pm	Seats (Total: 15) EDU 2102

EDHI672 **Modes of Inquiry in Education Research**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDHI672, EDPL672, or EDPS672. Formerly: EDPL672.

Introduction to modes of inquiry appropriate to research on issues and problems in education. Examination of qualitative, quantitative and mixed research methods and designs with a focus on related standards of quality.

0101	Steven Klees	Seats (Total: 20)
	M 7:00pm - 9:45pm Class time/details on ELMs	EDU 3233 ONLINE

EDHI677 **Ranking System in Higher Education: How They Work and Why They Matter**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI677 or EDHI788W. Formerly: EDHI788W.

A critical examination of domestic and international university rankings systems from their historic origins to current day. Students explore the criteria used to identify quality, the methods used to collect data, and the impact of ranking systems on institutional decision-making.

0101	KerryAnn O'Meara	Seats (Total: 15)
	Tu 4:15pm - 7:00pm Contact instructor or department for details.	EDU 2101

EDHI679 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

EDHI689 **Practicum In Educational Administration and Supervision**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDHI750 **International Higher Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDHI750, EDPL750, or EDPS750. Formerly: EDPL750.

Comparison of higher education systems in several countries, and of the problems and issues in higher education faced by these countries.

0101	Jing Lin W 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDHI788F **Special Topics in Education Policy and Administration; Global Climate Change and Education: Policy and Practice**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in education policy and administration.

0101	Jing Lin M 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 3233 ONLINE

EDHI789 **Doctoral Practicum in Administration and Supervision**

Credits: 1-3 Grading Method: Sat-Fail

Experiential activities designed to enhance student skills. Based on Individual Professional Development Plan for each student.

Contact department for information to register for this course.

EDHI798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master's, AGS, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Contact department for information to register for this course.

EDHI799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EDHI888 **Apprenticeship in Education**

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

0101	Sharon Fries-Britt Contact instructor or department for details.	Seats (Total: 5)
2101	Paulina Perez Mejias Contact instructor or department for details.	Seats (Total: 2)

2701	Marvin Titus Contact instructor or department for details.	Seats (Total: 2)
3501	Alberto Cabrera Casillas Contact instructor or department for details.	Seats (Total: 5)

EDHI889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDHI898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDHI899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

EDMS Measurement, Statistics, and Evaluation Fall 2022

EDMS451 **Introduction to Educational Statistics**

Credits: 3 Grading Method: Regular, Audit General Education: FSAR

Restriction: Sophomore standing or higher. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.

0101	Gregory Hancock TuTh 2:00pm - 3:15pm	Seats (Total: 120) CHM 1402

EDMS623 **Applied Measurement: Issues and Practices**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS410. And EDMS645; or students who have taken courses with comparable content may contact the department.

Measurement theory and its application at an intermediate level; test development, validation and interpretation; issues and recent developments in measurement.

0101	Hong Jiao	Seats (Total: 25)
	Th 4:15pm - 7:00pm	EDU 1315

EDMS645 **Quantitative Research Methods I**

Credits: 3 Grading Method: Regular, Audit

Research design and statistical applications in educational research: data representation; descriptive statistics; estimation and hypothesis testing. Application of statistical computer packages is emphasized.

0101	Alice Donlan	Seats (Total: 30)
	W 4:15pm - 7:00pm	ESJ 2212

EDMS646 **General Linear Models I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS645; or an equivalent introductory statistics course.

A first post-introductory inferential statistics course, with emphasis on analysis of variance procedures and designs from within the general linear modeling framework. Assignments include student analysis of education and related data; application of statistical software packages is emphasized.

0101	Shujin Zhong	Seats (Total: 30)
	Tu 4:15pm - 7:00pm	EDU 3315

EDMS651 **General Linear Models II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS646; or students who have taken courses with comparable content may contact the department.

Multiple regression and correlation analysis; trend analysis; hierarchical and stepwise procedures; logistic regression; software for regression analysis.

0101	Yang Liu	Seats (Total: 30)
	M 4:15pm - 7:00pm	EDU 3315

EDMS655 **Introduction to Multilevel Modeling**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDMS651; or students who have taken courses with comparable content may contact the department.

Introduction to multilevel models and methodology as strategies for modeling change and organizational effects.

0101	Tracy Sweet	Seats (Total: 20)
	W 4:15pm - 7:00pm	EDU 1121

EDMS657 **Exploratory Latent and Composite Variable Methods**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDMS651.

Development of models for exploratory factor analysis and their practical applications. Additional topics will draw from latent class analysis, cluster analysis, mixture models, canonical correlation, multidimensional scaling, and configural frequency analysis.

0101	Gregory Hancock	Seats (Total: 30)
	W 4:15pm - 7:00pm	HJP 2217

EDMS738M **Seminar in Special Problems in Measurement; Multidimensional/Multilevel Item Response Theory**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

An opportunity for students with special interests to focus in depth on contemporary topics in measurement. Topics to be announced, but will typically be related to applied and theoretical measurement.

0101	Ji Seung Yang	Seats (Total: 20)
	Th 4:15pm - 7:00pm	EDU 2101

EDMS769C **Special Topics in Applied Statistics in Education; Causal Mediation Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Designed primarily for students majoring or minoring in measurement, statistics or evaluation.

0101	Peter Steiner	Seats (Total: 30)
	M 4:15pm - 7:00pm	HBK 0123

EDMS798 **Special Problems in Education**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Master's, EDMS majors, or doctoral candidates who desire to pursue special research problems under the direction of their advisors may register for credit under this number.

Prerequisite: permission of department.

Contact department for information to register for this course.

EDMS799 **Master's Thesis Research**

Credits: 1-6

Grading Method: Sat-Fail

Registration required to the extent of 6 credits.

Contact department for information to register for this course.

EDMS889 **Internship in Measurement and Statistics**

Credits: 3-8

Grading Method: Regular, Audit

Provides internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

EDMS898 **Pre-Candidacy Research**

Credits: 1-8

Grading Method: Regular

Contact department for information to register for this course.

EDMS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6

Grading Method: Sat-Fail

Registration required to the extent of 12 credits.

Contact department for information to register for this course.

EDSP Education, Special Fall 2022

EDSP210 **Introduction to Special Education**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

General Education: DVUP

Restriction: Sophomore standing or lower. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Characteristics and needs of individuals receiving special education and related services. Current issues and practices in special education.

0101	Katryna Andrusik	Seats (Total: 20)
	MW 2:00pm - 3:15pm	JMZ 0205

FC01	Jennifer Amilivia MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 1121

EDSP211 **Introduction to Special Education**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Restriction: Sophomore standing or lower; and permission of EDUC-Counseling, Higher Education and Special Education department. Credit only granted for: EDSP210, EDSP211 or EDSP470.

An introduction to the field of special education. Students examine historical foundations, including legislation; review components necessary for effective service delivery; and develop an understanding of the role of collaboration and consultation with parents, school personnel and other professionals. In addition, students are introduced to the nature and characteristics of various disabilities and review current issues in the field including overrepresentation of minority students in special education, inclusion, and federal and state assessment mandates. Current topics are addressed including evidence-based practices, universal design for learning, and individualization and differentiation of instruction..

0101	Jennifer Amilivia M 1:00pm - 3:45pm	Seats (Total: 22) EDU 2102

EDSP220 **Disability in Community: Access, Accommodation, and Adaptation**

Credits: 3 Grading Method: Regular General Education: DSSP, DVCC

Examines the concept of disability in a variety of community settings. Drawing on classic and contemporary readings in psychology, sociology and special education, the course will couple conceptual and historical understanding of disability with first-hand service-learning experiences in the community. Students will develop a plan in several phases that encompasses principles of Universal Design for Living/Learning (UDL) to study and participate in community-based activities.

0101	Meredith Gramlich W 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 25) AJC 2119 ONLINE

EDSP298 **Special Problems in Teacher Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Available only to freshmen and sophomore education majors who have definite plans for individual study of approved problems relative to their preparation for teaching. Credit according to extent of work.

Contact department for information to register for this course.

EDSP311 **Peer Mentor Training and Certification**

Credits: 3 Grading Method: Regular

This course program offers a variety of opportunities and training to facilitate learning by providing students with ID/DD as a peer in the natural environment. Students will be able to develop understanding of disabilities and other conditions that could affect learning and other activities and learn ways to assist and build friendship through a mentor-mentee relationship. As part of the course, students will work on course assignments (discussions, reflections, and case analysis) and field work where they will directly work with diverse populations in the Terps-EXCEED program.

0101	Yewon Lee TuTh 12:30pm - 1:45pm	Seats (Total: 25) HBK 1112

EDSP321 **The Young Child As Scientist**

Credits: 3 Grading Method: Regular

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP417, EDHD441, EDHD442, EDHD443, and EDHD444.

A theoretical and pedagogical framework for evidence-based inclusive science instruction in inclusive early childhood classrooms. Examination of principles of inquiry-based science learning and develop strategies for helping children acquire fundamental problem-solving skills that may be applied to understanding a wide array of science content. Assessment strategies for evaluating the achievement of science objectives, and the achievement for all children will be addressed. Includes field experience.

0101	Jennifer Amilivia W 8:00am - 10:30am	Seats (Total: 32) EDU 3315

EDSP376 **Fundamentals of Sign Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

0101	Elizabeth Martinez MW 5:00pm - 6:15pm	Seats (Total: 20) ASY 3207
0201	Wagma Ahmadzai, Dina Toulan TuTh 4:15pm - 5:30pm	Seats (Total: 15) ONLINE

EDSP400 **Instruction of Students with Severe Disabilities I**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Special Education program. Jointly offered with EDSP602. Credit only granted for: EDSP400 or EDSP602.

Functional assessment procedures and instructional methods for students with severe disabilities.

0101	Seyma Intepe Tingir W 1:15pm - 4:00pm	Seats (Total: 40) SQH 1101	

EDSP401 **Teaching Students with Disabilities in Elementary Classrooms**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of EDUC-Special Education department. Credit only granted for: EDSP401 or EDSP499F. Formerly: EDSP499F.

This course is designed for elementary education majors to prepare for teaching students with disabilities in elementary classrooms. The course examines the legal requirements for general education teachers in the public schools including best practices for participating in the Individual Education Program (IEP) team process, and understanding Response to Intervention (RTI) as a approach to the early identification and support of students with learning and behavior needs. Information is provided on the characteristics of students who have been identified as having high incidence disabilities (e.g., learning disabilities, attention deficit hyperactivity disorder, speech and language delays, emotional or behavioral disorders, and other health impairments). The course then provides information on universal design (UDL) principles for learning, instructional suggestions to include students with disabilities in the general classroom, co-teaching and methods for integrating technology and assistive technology to benefit all students.

0101	Seyma Intepe Tingir, Julianna Kim M 4:15pm - 5:30pm W 11:00am - 12:15pm	Seats (Total: 30) TYD 1102 ONLINE	 Discussion
0102	Seyma Intepe Tingir, Julianna Kim M 4:15pm - 5:30pm Tu 11:00am - 12:15pm	Seats (Total: 30) TYD 1102 EDU 2119	 Discussion

EDSP404 **Education of Students with Autism Spectrum Disorders**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP604. Credit only granted for: EDSP404 or EDSP604.

Characteristics of children and youth diagnosed with an autism spectrum disorder (ASD), assessment, and evidence-based instructional methods in teaching autistic students who come from diverse ethnic, cultural, and socio-economic backgrounds.

0101	Gulnoza Yakubova W 4:15pm - 7:00pm	Seats (Total: 40) EDU 2119	

EDSP411 **Universal Design for Learning**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: EDSP210 or EDSP470. Restriction: Must be in Special Education program.

Addresses ways to integrate technology and Assistive Technology (AT) into content area instruction, use Accessible Educational Materials (AEM), and the Universal Design for Learning (UDL) framework to evaluate, analyze, and develop responsive instruction.

0101	Susan De La Paz	Seats (Total: 24)
	Th 1:15pm - 4:00pm	EDU 1121

EDSP413 **Behavior and Classroom Management in Special Education**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Special Education program. Jointly offered with: EDSP613. Credit only granted for: EDSP413 or EDSP613.

Use of positive behavior supports to promote both classwide and individual student behavior skills through function-based behavior assessment, establishing classroom expectations, and examining common misbehaviors that often result in learning loss.

0101	Alicia Woolf	Seats (Total: 22)
	Tu 4:15pm - 7:00pm	EDU 2102

EDSP417 **Reading Diagnosis and Assessment**

Credits: 3 Grading Method: Regular

Prerequisite: EDSP423, EDHD431, and EDSP315; and track 1: Must have completed EDSP430 and EDSP433; OR Track 2: Must have completed EDHD415 and EDHD424. Corequisite: EDHD322, EDHD323, EDSP321, EDHD441, EDHD442, EDHD443, and EDHD444.

Reading Diagnosis and Assessment prepares teacher candidates to assess children in general and special early childhood educations settings in the areas of reading and writing in order to plan for instruction. The course will focus on diagnostic, screening, progress monitoring, and outcome assessments in early and beginning literacy. The course is designed to provide participants with the knowledge and skills necessary to collect and use a wide range of assessment data in general education and special education settings. Includes field experience.

0101	Monerah Al-Dubayan	Seats (Total: 32)
	M 1:00pm - 3:45pm	TYD 1108

EDSP420 **Child Development, Birth to Three Years**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDHD210, EDHD220, and EDSP211. Corequisite: EDHD314 and EDHD425. Cross-listed with: EDHD434. Credit only granted for: EDHD419A, EDSP420 or EDHD434. Formerly: EDHD419A.

Designed to provide students with an understanding of child development theory and research, as well as knowledge about typical and atypical development of children from birth to three years of age. The course emphasizes learning for children with and without disabilities, and for children who are at risk due to poverty and other environmental factors. The course will introduce how children develop and the challenges they face within the domains of physical, cognitive, language, social, and emotional development, with particular attention paid to the impact of risk factors on development. Students will become familiar with delays and differences in development that may occur as the result of disability. Finally, students will learn the effects of cultural and linguistic differences on growth and development. Information about theory and research in child development for children with and without disabilities will be enhanced through a series of observational experiences, which will build upon concepts addressed during class. Includes field experiences.

0101	Jennifer Amilivia	Seats (Total: 36)
	W 1:00pm - 4:00pm	ASY 2309

EDSP425 **Pre-Internship I**

Credits: 1 Grading Method: Regular

Corequisite: EDSP451 and EDSP400. Restriction: Must be in the Special Education major.

This required EDSP field placement is a 3-hour per week seminar and field placement that meets across 15 weeks. Opportunities are provided to observe and participate in instructional experiences under the guidance of an assigned Host Teacher (HT) in a four-week experience in a high incidence placement AND a four-week experience in a low incidence (LI) placement. The purpose is to provide each special education teacher candidate (TC) with practical experience to complete field-based requirements and begin to meet the CEC Initial Preparation Standards (2012). Furthermore, since EDSP 425 is the first internship experience in the Special Education Program in the College of Education at University of Maryland, teacher candidates will become familiar with the Special Education Program, College of Education, Maryland State Department of Education (MSDE), Counsel for Accreditation of Educator Preparation (CAEP), and Council for Exceptional Children (CEC) expectations and requirements for graduation and teacher licensure.

0101	Heather Stormont	Seats (Total: 30)
	Tu 9:00am - 12:00pm	LEF 1220

EDSP443 **Language and Literacy Acquisition in Children with Disabilities**

Credits: 3 Grading Method: Regular

Restriction: Must be in Special Education program. Additional information: This course is the first of four reading courses required by the Maryland State Department of Education for teacher certification in Special Education.

Language and literacy acquisition and characteristics of typical and atypical language development in supporting students with reading and writing disabilities.

0101	Nicole Abera	Seats (Total: 40)
	W 4:15pm - 7:15pm	TYD 0111

EDSP451 **Curriculum and Instruction: Elementary/Middle Special Education**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Special Education program. Jointly offered with EDSP652. Credit only granted for: EDSP451 or EDSP652.

Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

0101	Dawn Martin M 1:00pm - 4:00pm Class time/details on ELMs	Seats (Total: 40) EDU 1121 ONLINE

EDSP452 **Internship I: Elementary/Middle Special Education**

Credits: 2-4 Grading Method: Regular, Audit General Education: DSSP

Restriction: Must be in Special Education program. Jointly offered with EDSP692. Credit only granted for: EDSP452 or EDSP692.

Field experience in elementary/middle school special education.

0101	Stacey Williams F 10:00am - 12:00pm WTh 8:00am - 3:00pm	Seats (Total: 20) HBK 1108 ONLINE Lab

EDSP470 **Introduction to Special Education**

Credits: 3 Grading Method: Regular, Audit General Education: DVUP

Restriction: Must not have completed EDSP210. Credit only granted for: EDSP210, EDSP211 or EDSP470.

Designed to give an understanding of the needs of all types of exceptional children.

0101	Tasha Harris MW 5:00pm - 6:15pm	Seats (Total: 42) KEY 0103
0301	Jason Chow MW 12:30pm - 1:45pm	Seats (Total: 40) TWS 1107

EDSP476 **Communicating with Sign Language**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: EDSP376. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

0101	Elizabeth Martinez	Seats (Total: 20)
	MW 6:15pm - 7:30pm	ASY 3207

EDSP484 Reading and Writing Instruction in Special Education II

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDSP416. Restriction: Must be in Special Education program. Jointly offered with EDSP684. Credit only granted for: EDSP484 or EDSP684.

Focus on the development of reading and writing programs for students in special education. Builds on foundations established in EDSP416.

0101	Tara Johnston, Erin Hogan	Seats (Total: 40)
	Tu 1:15pm - 3:45pm	EDU 1121

EDSP489 Field Experiences in Special Education

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

2101	Jason Chow	Seats (Total: 10)
	Contact instructor or department for details.	
2901	Elizabeth Martinez	Seats (Total: 2)
	Contact instructor or department for details.	

EDSP490 Teacher Candidate Research Seminar in Special Education

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Restriction: Must be in Special Education program.

Study of current issues and research concerning the education of students in special education.

0101	Seyma Intepe Tingir	Seats (Total: 20)
	M 1:15pm - 4:00pm	ASY 3217

EDSP498 Special Problems in Special Education

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

Special education majors only.

Contact department for information to register for this course.

EDSP499 **Workshops, Clinics, and Institutes in Special Education**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2101	Jason Chow Contact instructor or department for details.	Seats (Total: 10)

EDSP600 **Issues and Trends in Educating Individuals with Disabilities**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: 9 credits in EDSP courses. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Examines research and practice relevant to the education of individuals with disabilities.

PLT1	Kelly Piantedosi Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program or a graduate student in a Semester Academic Calendar program.*	Seats (Total: 25) ONLINE

EDSP602 **Instruction of Students with Severe Disabilities I**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP400 or EDSP602.

Functional assessment procedures and instructional methods for students with severe disabilities.

0101	Seyma Intepe Tingir W 1:15pm - 4:00pm	Seats (Total: 40) SQH 1101

EDSP604 **Education of Students with Autism Spectrum Disorder**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with: EDSP404. Credit only granted for: EDSP404 or EDSP604.

Characteristics of children and youth diagnosed with an autism spectrum disorder (ASD), assessment, and evidence-based instructional methods in teaching autistic students who come from diverse ethnic, cultural, and socio-economic backgrounds.

0101	Gulnoza Yakubova W 4:15pm - 7:00pm	Seats (Total: 40) EDU 2119

EDSP613 **Behavior and Classroom Management in Special Education**

Credits: 3 Grading Method: Regular

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program; or permission of instructor. Jointly offered with: EDSP413. Credit only granted for: EDSP413 or EDSP613.

Use of positive behavior supports to promote both classwide and individual student behavior skills through function-based behavior assessment, establishing classroom expectations, and examining common misbehaviors that often result in learning loss.

0101	Alicia Woolf Tu 4:15pm - 7:00pm	Seats (Total: 22) EDU 2102

EDSP625 **Seminar on Severely Handicapping Conditions**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Examine and apply empirical research aligned to current trends and areas of investigation in the field of students with significant support needs.

0101	Seyma Intepe Tingir Tu 4:15pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) EDU 2119 ONLINE

EDSP632 **Embracing Diversity: Teaching Students with Disabilities and Gifted Learners in Secondary**

Credits: 3 Grading Method: Regular

Prerequisite: Permission of instructor. Restriction: Permission of EDUC-Special Education department. Credit only granted for: EDSP609 or EDSP632. Formerly: EDSP609.

Designed for secondary education majors to prepare for teaching students with disabilities in secondary classrooms. Examines the legal requirements for general education teachers in the public schools including best practices for participating in the Individual Education Program (IEP) team process, and understanding Response to Intervention (RTI) as a approach to the early identification and support of students with learning and behavior needs. Information is provided on the characteristics of students who have been identified as having high incidence disabilities (e.g., learning disabilities, attention deficit hyperactivity disorder, speech and language delays, emotional or behavioral disorders, and other health impairments). Information is also provided on the characteristics of students who are considered gifted and/or talented, as well as instructional methods for differentiating instruction to meet their needs. Also provides information on universal design (UDL) principles for learning, instructional suggestions to include students with disabilities in the general classroom, co-teaching, and methods for integrating technology and assistive technology to benefit all students.

Contact department for information to register for this course.

EDSP652 Curriculum and Instruction: Elementary Special Education

Credits: 3 Grading Method: Regular, Audit

Jointly offered with EDSP451. Credit only granted for: EDSP451 or EDSP6 52.

Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

For EDSP majors only.

0101	Dawn Martin M 1:00pm - 4:00pm Class time/details on ELMs	Seats (Total: 40) EDU 1121 ONLINE
PLT1	Kelly Piantedosi Class time/details on ELMs *Must be in the General Education Teachers in Inclusive Classrooms program or a graduate student in a Semester Academic Calendar program.*	Seats (Total: 25) ONLINE

EDSP655 Seminar in Secondary and Transition Special Education

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Review of research pertaining to individuals with disabilities in secondary and post-secondary vocational and transitional settings.

PGE1	Christy Stuart	Seats (Total: 19)
	Meets October 14, 2022 - November 19, 2022	
	Class time/details on ELMs	ONLINE
	F 5:00pm - 8:00pm	BLD3 3206
	Sa 9:00am - 5:00pm	ONLINE
	Must be in Special Education Leadership (Ed.D.). Course will not meet Veterans Day weekend.	

EDSP670 **Single Subject Research Designs**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design, application, procedures, and analysis of single case research designs in special education to effectively evaluate instructional decisions.

IH17	Gulnoza Yakubova	Seats (Total: 25)
	Meets October 12, 2022 - November 15, 2022	
	F 6:30pm - 9:30pm	Location: TBA
	Sa 9:00am - 4:30pm	Location: TBA

EDSP671 **Qualitative Methodologies in Special Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: EDSP600. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department.

Design and evaluation of qualitative research in special education across disabilities and ages.

Contact department for information to register for this course.

EDSP684 **Reading and Writing Instruction in Special Education II**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: EDSP616. Restriction: Permission of EDUC-Counseling, Higher Education and Special Education department. Jointly offered with EDSP484. Credit only granted for: EDSP484 or EDSP684.

Development of effective reading and writing programs for students receiving special education services. Builds on the foundation established in EDSP 616.

0101	Erin Hogan, Tara Johnston	Seats (Total: 40)
	Tu 1:15pm - 3:45pm	EDU 1121

EDSP690 **Teacher Candidate Research Seminar in Special Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program.

Required seminar for master's certification teacher candidates in special education focusing on research methods and applications with students having disabilities.

0101	Seyma Intepe Tingir	Seats (Total: 20)
	M 1:15pm - 4:00pm	ASY 3217

EDSP692 **Graduate Internship I: Elementary/Middle Special Education**

Credits: 2-4 Grading Method: Regular, Audit

Restriction: Must be in Special Education (Master's) program. Credit only granted for: EDSP452 or EDSP692.

Field experience in elementary/middle school special education.

0101	Stacey Williams	Seats (Total: 5)	
	F 10:30am - 12:00pm MTuWTh 8:00am - 1:00pm	Location: TBA ONLINE	Lab

EDSP798 **Special Problems in Special Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

Special education majors only.

Contact department for information to register for this course.

EDSP798T **Special Problems in Special Education; Developing Inclusive Learning Environments through Collaborative Leadership**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Intended for Master's, AGS, or doctoral students in education who desire to pursue a research problem.

PDE1	Barbara Gruber	Seats (Total: 19)
	Meets August 26, 2022 - October 1, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Special Education Leadership (Ed.D.).	

EDSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of six hours for Master's thesis.

Special education majors only.

Contact department for information to register for this course.

EDSP860 **Doctoral Research Seminar**

Credits: 3 Grading Method: Regular, Audit

Issues and procedures relevant to conducting and analyzing research in special education.

0101	Gulnoza Yakubova	Seats (Total: 15)
	M 12:00pm - 3:00pm	JMZ 3203

EDSP875 **Policy Issues Affecting Individuals with Disabilities**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor; or must be in Special Education (Doctoral) program; or must be in Special Education (Master's) program.

An analysis of current educational and disability issues and policies pertaining to children, youth, and adults with disabilities.

0101	Philip Burke	Seats (Total: 25)
	Th 4:15pm - 7:00pm	EDU 1121

EDSP888 **Apprenticeship in Special Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP888A **Apprenticeship in Special Education; Apprenticeship in College Teaching**

Credits: 1-3 Grading Method: Regular

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate- seeking graduate students.

Contact department for information to register for this course.

EDSP889 **Internship in Special Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Special education majors only.

Contact department for information to register for this course.

EDSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EDSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. dissertation.

Special education majors only.

Contact department for information to register for this course.

EDUC Education Fall 2022

EDUC388 **Special Topics in Education; Guided Experience In College Teaching**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0401	Sharon Vanwright	Seats (Total: 20)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
	Relates to the academic achievement program and should be taken concurrently with EDCI498, section 6601.		
SG91	Annie Foster Ahmed, Mary Gallagher, Parisa Meisami	Seats (Total: 12)	
	W 3:30pm - 5:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students at the Universities at Shady Grove. Prerequisite Permission of the Director of the Macklin Center for Academic Success (MCAS) at USG.		

EDUC388T **Special Topics in Education; Guided Experience in College Teaching - UTA**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0101	Stephanie Williams	Seats (Total: 30)	
	M 5:00pm - 7:00pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

EDUC388U **Special Topics in Education; New Student Programs**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

0201	Tori Shay W 5:00pm - 7:00pm Contact instructor or department for details. *Restricted to students who are teaching UNIV100 or UNIV101.*	Seats (Total: 23) HBK 1112
0501	Rachel Blanset, Evelyn Covington Tu 5:00pm - 7:00pm Contact instructor or department for details.	Seats (Total: 20) SYM 3121

EDUC498 **Selected Topics in Education**

(Perm req)

Credits: 1-3 Grading Method: Regular

Current topics and issues in education.

0101	Stephanie Williams Contact instructor or department for details.	Seats (Total: 30)

EDUC498B **Selected Topics in Education; Career Development and Advising**

(Perm req)

Credits: 1-3 Grading Method: Regular

Current topics and issues in education.

0101	Jessica Chew, Christie De Leon Th 4:30pm - 5:20pm Contact instructor or department for details.	Seats (Total: 15) EDU 1204

EDUC689 **Practicum In Educational Administration and Supervision**

Credits: 1-3 Grading Method: Sat-Fail

Promotes skill development in managerial, leadership and supervisory areas. Practicum is based on results of diagnostic instruments and an individual professional development plan.

Contact department for information to register for this course.

EDUC702 **Applied Research Design for Education Leaders**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC702 or EDHI702. Formerly: EDHI 702.

Emphasizes quantitative and qualitative methodologies to investigate a range of educational problems. Designed for EdD doctoral students.

Contact department for information to register for this course.

EDUC703 **Conducting Library Research for Dissertations**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education; and must be enrolled in EdD in School System Leadership.

Course is designed to provide students in the Ed.D. doctoral program in School System Leadership with the skills necessary to conduct library research in preparation for developing the literature review for the Capstone.

Contact department for information to register for this course.

EDUC704 **Introduction to Writing the Dissertation in Practice**

(Perm req)

Credits: 2

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education and Must be in EdD School System Leadership program.

This course is designed to provide students in the Ed.D. program with specific strategies and skills needed to complete their Dissertation of Practice. Skills include constructing a problem statement and developing a cohesive argument for a proposed solution.

Contact department for information to register for this course.

EDUC705 **Education Policy Making and the School Leader**

Credits: 4

Grading Method: Regular, Audit

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC705 or EDPL663. Formerly: EDPL663.

Course analyzes educational K-12 policies and their impacts on school systems and the leadership of those systems

Contact department for information to register for this course.

EDUC767 **Seminar on School District Leadership**

(Perm req)

Credits: 4

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of EDUC-College of Education. Credit only granted for: EDUC767 or EDHI767. Formerly: EDHI767.

Examination of theory and research related to school district leadership with focus on improvement sciences. Course uses improvement science model to understand organizational, political, community, instructional problems of practice.

Contact department for information to register for this course.

EDUC828 **Mid-Program Evaluation Portfolio**

(Perm req)

Credits: 2-6

Grading Method: Regular

Students will examine issues of performance assessment and develop a professional portfolio that follow NELP standards and assessment criteria and will compile and synthesize research/inquiry and experiential learning and reflections that demonstrate mastery of the standards.

Contact department for information to register for this course.

EDUC898 **Pre-Candidacy Research**

Credits: 2-4 Grading Method: Regular

Pre-Candidacy Research

Contact department for information to register for this course.

EDUC899 **Dissertation of Practice Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Dissertation.

PGCPS II EdD Outreach Program. Registration restricted to program.

Contact department for information to register for this course.

EMBA Executive MBA Program Fall 2022

EMBA637 **Corporate Finance**

Credits: 4 Grading Method: Regular

Restriction: Must be in Executive MBA program.

Presents key concepts in corporate finance as well as tools used in making corporate financial decisions. Topics include valuation of corporate securities, capital investment decision making, capital market theory, operation and efficiency of financial markets, corporate financing decisions, and risk management.

Contact department for information to register for this course.

EMBA656 **Leadership and Human Capital**

Credits: 3 Grading Method: Regular

Restriction: Must be in Executive MBA program.

The overall objective of this course is to sensitize participants to the fact that managers face many dilemmas (such as the need to maintain control, yet be flexible enough to effectively change as the competitive environment requires); and therefore, managers need to have skills that will enable them to effectively manage and lead, and thus to become leader-managers. How managing versus leading-skills differ will be emphasized in this course. To raise participants' sensitivity to managerial dilemmas and the skills needed to effectively manage these, there will be extensive use of case discussions and video-clips about challenges faced by companies and their managers, and extensive opportunities for self-reflective and experiential exercises. The development of action-plans for implementing a desirable change in participants' current job-situation will also help participants to hone the skills needed to be effective change-agents, hence leaders, in their organization.

Contact department for information to register for this course.

EMBA683 **The Global Economic Environment**

Credits: 2 Grading Method: Regular

Restriction: Must be in Executive MBA program.

Relationship between national and international economic environments. Determinants of output, interest rates, prices and exchange rates. Analysis of effect of economic policies (fiscal, monetary, trade, tax) on the firm and the economy.

Contact department for information to register for this course.

EMBA759 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular

Independent study for Masters students in Business.

Contact department for information to register for this course.

EMBA788B **Executive Skills Mastery; Doing Business in Brazil**

(Perm req)

Credits: 2 Grading Method: Regular

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Paulo Prochno	Seats (Total: 5)
	Meets October 24, 2022 - December 12, 2022	
	Su 12:00pm - 1:00pm	VMH 1303
	Contact instructor or department for details.	

EMBA788J **Executive Skills Mastery; Doing Business in South Africa**

(Perm req)

Credits: 2 Grading Method: Regular

This course is designed to focus on the development of the specific set of skills that executives need to successfully perform in today's organizational environment. Students complete assessments which help to target their specific skill level and in the aggregate give instructors clear ideas on the needs of the cohort. The assessments also augment executive coaching, when provided. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

GX01	Bennet Zelner	Seats (Total: 8)
	Meets October 24, 2022 - December 15, 2022	
	Su 12:00pm - 1:00pm	VMH 1330
	Contact instructor or department for details.	

EMBA789J **Leadership Mastery**

Credits: 2 Grading Method: Sat-Fail

This course addresses organizational challenges from the CEO or C-level perspective. At this level, the ability to engage ambiguity and chaos effectively is essential. Creating strategy while using a systems approach and understanding how each functional area interacts with the other (with both the short-term and long-term in mind) are of very high importance. The course covers topics that consume the days of senior level leaders in organizations. This is typically registered as a one credit course except when a particular program's cirriculum allocates enough contact hours to all course topics to be covered at a more advanced level.

Contact department for information to register for this course.

EMBA798D **Action Learning Project**

Credits: 2 Grading Method: Regular

This course is designed to give the student the opportunity to work on a real-time, salient business challenge or issue for the sponsoring organization. This is often the student's employer. Students are encouraged to design projects which extend beyond a single functional area and require them to examine the interaction of multiple functional areas from a systems perspective. Students work in teams for the projects. This allows them to learn from one another, as well as to learn how to work more effectively in teams - especially in a largely virtual environment. This is typically a two credit course when projects are initiated and completed entirely within a single term. It may be a one credit course when projects extend over more than one term.

Contact department for information to register for this course.

ENAE Engineering, Aerospace Fall 2022

ENAE100 **The Aerospace Engineering Profession**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENES100 and MATH140.

Overview of salient aspects of professional practice of Aerospace Engineering. Introduction to the range of technical expertise needed to succeed in the profession and the objectives of the various parts of the Aerospace Engineering program at UMCP in supporting students' efforts in gaining the required knowledge and skills. Familiarization with departmental faculty and their areas of research, creation of links with other students, professional society student chapters, and available resources. Discussion of ethical issues, business requirements, and their interactions with technical developments.

0101	Norman Wereley Tu 12:30pm - 1:45pm M 2:00pm - 2:50pm	Seats (Total: 28) EGR 1202 EGR 2116	 Discussion
0102	Norman Wereley Tu 12:30pm - 1:45pm M 4:00pm - 4:50pm	Seats (Total: 28) EGR 1202 EGR 2154	 Discussion

0103	Norman Wereley Tu 12:30pm - 1:45pm Tu 11:00am - 11:50am	Seats (Total: 28) EGR 1202 EGR 2154	 Discussion
0104	Norman Wereley Tu 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 28) EGR 1202 EGR 3106	 Discussion
0105	Norman Wereley Tu 12:30pm - 1:45pm W 4:00pm - 4:50pm	Seats (Total: 28) EGR 1202 EGR 2154	 Discussion

ENAE202 **Computing Fundamentals for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0104	Avik Dutt MW 11:00am - 11:50am W 2:00pm - 3:50pm	Seats (Total: 11) EGR 1202 EGR 0312	 Lab

ENAE283 **Introduction to Aerospace Systems**

Credits: 3 Grading Method: Regular

Prerequisite: PHYS161, MATH141, and ENES102. Corequisite: PHYS261 and PHYS260. Restriction: Must be in Engineering: Aerospace program. Credit only granted for: (ENAE281 and ENAE282) or ENAE283. Formerly: ENAE281 and ENAE282.

Introduction to airplanes and space vehicles as aerospace systems. Fundamentals that describe these systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design.

0101	Mary Bowden TuTh 12:30pm - 1:45pm	Seats (Total: 62) MMH 1400	
0102	Benjamin Silbaugh TuTh 12:30pm - 1:45pm	Seats (Total: 25) EGR 1102	

ENAE283H **Introduction to Aerospace Systems**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: PHYS161, MATH141, and ENES102. Corequisite: PHYS261 and PHYS260. Restriction: Must be in Engineering: Aerospace program. Credit only granted for: (ENAE281 and ENAE282) or ENAE283. Formerly: ENAE281 and ENAE282.

Introduction to airplanes and space vehicles as aerospace systems. Fundamentals that describe these systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design.

0101	Alison Flatau TuTh 12:30pm - 1:45pm	Seats (Total: 30) EGR 2116	

ENAE301 Dynamics of Aerospace Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, MATH461, PHYS270, MATH246, ENAE283, ENAE202, ENES102, and MATH241. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Kinematics and dynamics of three dimensional motion of point masses and rigid bodies with introduction to more general systems. Primary emphasis on Newtonian methods. Practice in numerical solutions and computer animation of equations of motion using MATLAB.

0101	Derek Paley TuTh 12:30pm - 1:45pm F 1:00pm - 1:50pm	Seats (Total: 40) ESJ 2208 CSI 2120	 Lab
0102	Derek Paley TuTh 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 40) ESJ 2208 CSI 2120	 Lab
0103	Derek Paley TuTh 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 40) ESJ 2208 CSI 2120	 Lab
0104	Derek Paley TuTh 12:30pm - 1:45pm F 4:00pm - 4:50pm	Seats (Total: 40) ESJ 2208 CSI 2120	 Lab

ENAE311 Compressible Aerodynamics

Credits: 3 Grading Method: Regular

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

0101	Christopher Cadou TuTh 9:30am - 10:45am	Seats (Total: 125) ESJ 1224
0102	Ashish Nedungadi TuTh 5:00pm - 6:15pm	Seats (Total: 60) ONLINE

ENAE311H **Compressible Aerodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Fundamentals of aerodynamics. Elements of compressible flow. Normal and oblique shock waves. Flows through nozzles, diffusers and wind tunnels. Elements of the method of characteristics and finite difference solutions for compressible flows. Aspects of hypersonic flow.

0101	Christoph Brehm TuTh 9:30am - 10:45am	Seats (Total: 30) CSI 3120

ENAE362 **Aerospace Instrumentation and Experimentation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246 and ENAE283. Restriction: Must be in Engineering: Aerospace program; and junior standing or higher.

Basic instrumentation electronics including DC electronics, AC electronics, semiconductors, electro-optics and digital electronics. Sensing devices used to carry out experiments in Aerospace Engineering includes metrology, machine tool measurements, bridge circuits, optical devices, and introduction to computer based data acquisition. Topics chosen to support measurements in aerodynamics, flight structures and flight control.

0101	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm M 2:00pm - 5:00pm	Seats (Total: 26) EGR 1202 EGL 0123	 Lab

0102	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm Tu 2:00pm - 5:00pm	Seats (Total: 26) EGR 1202 EGL 0123	 Lab
0103	Benjamin Silbaugh, Allen Winkelmann MW 1:00pm - 1:50pm W 2:00pm - 5:00pm	Seats (Total: 26) EGR 1202 EGL 0123	 Lab
0104	Allen Winkelmann, Benjamin Silbaugh MW 1:00pm - 1:50pm Th 2:00pm - 5:00pm	Seats (Total: 26) EGR 1202 EGL 0123	 Lab
0105	Benjamin Silbaugh, Allen Winkelmann MW 1:00pm - 1:50pm W 8:50am - 11:50am	Seats (Total: 26) EGR 1202 EGL 0123	 Lab
0106	Benjamin Silbaugh, Allen Winkelmann MW 1:00pm - 1:50pm F 8:50am - 11:50am	Seats (Total: 26) EGR 1202 EGL 0123	 Lab

ENAE380 **Flight Software Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE283 and ENAE202. Restriction: Must be in Engineering: Aerospace program; and junior standing or higher.

Avionics using advanced sensor and computing technologies are at the heart of every modern Aerospace vehicle. Advanced software systems to improve cockpit safety and enable unmanned and deep-space missions. Object-oriented programming and software engineering concepts required to design and build complex flight software systems. Software validation, verification and real-time performance analysis to assess flight software system reliability and robustness. Human-machine interface design for piloted systems. Automatic onboard data acquisition and decision-making for unmanned air and space vehicles.

0101	Mumu Xu MW 12:00pm - 12:50pm F 9:00am - 10:50am	Seats (Total: 30) EGR 1202 MTH 0407	 Discussion
0102	Mumu Xu MW 12:00pm - 12:50pm F 1:00pm - 2:50pm	Seats (Total: 30) EGR 1202 MTH 0409	 Lab

0103	Mumu Xu MW 12:00pm - 12:50pm F 3:00pm - 4:50pm	Seats (Total: 30) EGR 1202 MTH 0401	 Lab
0104	Mumu Xu MW 12:00pm - 12:50pm Tu 2:00pm - 3:50pm	Seats (Total: 30) EGR 1202 MTH 0103	 Lab
0105	Mumu Xu MW 12:00pm - 12:50pm W 9:00am - 10:50am	Seats (Total: 30) EGR 1202 MTH 0302	 Lab
0106	Mumu Xu MW 12:00pm - 12:50pm W 10:00am - 11:50am	Seats (Total: 30) EGR 1202 JMP 1202	 Lab

ENAE398H **Honors Research Project**

(Perm req)

Credits: 1-3 Grading Method: Regular

Planned sequence of steps in aerospace honors research in which students take three (3) consecutive semesters of this course in partial fulfillment of aerospace engineering honors program requirements. The first semester consists of a series of seminars and meetings with faculty mentors on honors research; two semesters consist of undergraduate honors research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference.

Contact department for information to register for this course.

ENAE403 **Aircraft Flight Dynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE414 and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Study of motion of aircraft, equations of motion, aerodynamic force representation, longitudinal and lateral motions, response to controls and to atmospheric disturbances, handling qualities criteria and other figures of merit.

0101	Michael Otte TuTh 3:30pm - 4:45pm	Seats (Total: 70) ESJ 2212	

ENAE414 **Incompressible Aerodynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, (MATH240 or MATH461), PHYS270, MATH246, ENAE283, ENES220, ENAE202, MATH241, and ENES232. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department; and junior standing or higher.

Aerodynamics of inviscid incompressible flows. Aerodynamic forces and moments. Fluid statics/buoyancy force. Vorticity, circulation, the stream function and the velocity potential. Bernoulli's and Laplace's equations. Flows in low speed wind tunnels and airspeed measurement. Potential flows involving sources and sinks, doublets, and vortices. Development of the theory of airfoils and wings.

0101	Anya Jones, Oliver Wild	Seats (Total: 35)
	TuTh 9:30am - 10:45am	JMP 1109

ENAE423 **Vibration and Aeroelasticity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE324. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Dynamic response of single and multiple degrees of freedom systems, finite element modeling, wing divergence, aileron reversal, wing and panel flutter.

0101	Sung Lee	Seats (Total: 125)
	MWF 11:00am - 11:50am	ESJ 1202

ENAE423H **Vibration and Aeroelasticity**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE324. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Dynamic response of single and multiple degrees of freedom systems, finite element modeling, wing divergence, aileron reversal, wing and panel flutter.

0101	Norman Wereley	Seats (Total: 35)
	MWF 11:00am - 11:50am	EGR 2154

ENAE441 **Space Navigation and Guidance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE404 and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Principles of navigation. Celestial, radio, and inertial navigation schemes. Navigational and guidance requirements for orbital, planetary, and atmospheric entry missions. Fundamentals of communications and information theory. Link budgets, antennas and telemetry systems.

0101	Liam Healy	Seats (Total: 110)
	TuTh 9:30am - 10:45am	CHE 2110

ENAE455 Aircraft Propulsion and Power

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENES232, ENAE414, and ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of piston, turbojet, fanjet, and other variations of airbreathing aircraft power units.

0101	Kenneth Yu	Seats (Total: 70)
	TuTh 12:30pm - 1:45pm	KEB 1200

ENAE457 Space Propulsion and Power

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: PHYS271, ENES232, PHYS270, and ENAE311. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department. And senior standing.

Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of rocket, ion, and other exoatmospheric power units.

0101	Ray Sedwick	Seats (Total: 110)
	TuTh 2:00pm - 3:15pm	CHE 2110

ENAE481 Principles of Aircraft Design

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE324, ENAE362, and ENAE432. Corequisite: ENAE414. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Aircraft design principles blending both synthesis and analysis. The iterative nature of the design process. Applied aerodynamics. Elements of aircraft performance calculation and optimization. Design of aircraft including payload, crew and avionics provisions, propulsion selection and sizing, aerodynamic configuration optimization, mass properties, stability and control characteristics, and vehicle subsystems. Individual student projects in aircraft design.

Restricted to students in the Vertical Flight Society Helicopter Design Competition and requires permission of the instructor to enroll.

0101	Dominic Palumbo	Seats (Total: 45)
	MWF 2:00pm - 2:50pm	ITV 1111

0201	Sung Lee TuTh 2:00pm - 3:15pm	Seats (Total: 15) CSI 3117
	Restricted to students on the Design, Build, Fly team and requires permission from the department to enroll.	
0301	Vengalattore Nagaraj, Spencer Fishman TuTh 2:00pm - 3:15pm	Seats (Total: 10) PHY 4222
	Restricted to students in the Vertical Flight Society Helicopter Design Competition and requires permission of the instructor to enroll. Membership of Vertical Flight Society is not necessary to enroll in the class.	

ENAE483 **Principles of Space Systems Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENAE404, ENAE324, ENAE362, and ENAE432. Restriction: Must be in Engineering: Aerospace program; or permission of ENGR-Aerospace Engineering department.

Principles of space systems analysis and vehicle design. Launch vehicle performance analysis and optimization. Design of vehicle systems including avionics, power, propulsion, life support, human factors, structures, actuator and mechanisms, and thermal control. Design processes and design synthesis. Individual student projects in vehicle design.

0101	David Akin TuTh 11:00am - 12:15pm	Seats (Total: 110) SPH 1312

ENAE499 **Elective Research**

(Perm req)

Credits: 3 Grading Method: Regular

Undergraduate research project and paper conducted under the direction of an aerospace engineering faculty member to be presented at a conference or competition.

Contact department for information to register for this course.

ENAE601 **Astrodynamics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE404; or permission of ENGR-Aerospace Engineering department.

Mathematics and applications of orbit theory, building upon the foundations developed in ENAE 404 and ENAE 441. Topics include two body orbits, solutions of Kepler's equation, the two-point boundary value problem, rendezvous techniques, and Encke's method.

0101	Jackson Shannon MW 6:30pm - 7:45pm	Seats (Total: 25) EGR 1108

ENAE603 **Near-Earth Object Exploration**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENAE601. Restriction: Must be in one of the following programs (ENGR: MS/PhD-Aerospace Engineering (Master's); ENGR: MS/PhD-Aerospace Engineering (Doctoral)). Credit only granted for: ENAE788N or ENAE603. Formerly: ENAE788N.

An overview of the near-Earth objects (NEOs) of our solar system--the asteroids and comets whose orbits closely approach Earth's orbit--and what we know about them, what we're learning about them, and how to design spacecraft missions to interact with them.

0101	Brent Barbee TuTh 5:00pm - 6:15pm	Seats (Total: 15) EGR 3102

ENAE631 **Helicopter Aerodynamics I**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENAE414 and ENAE311. Or permission of ENGR-Aerospace Engineering department; and permission of instructor.

A history of rotary-wing aircraft, introduction to hovering theory, hovering and axial flight performance, factors affecting hovering and vertical flight performance, autorotation in vertical descent, concepts of blade motion and control, aerodynamics of forward flight, forward flight performance, operational envelope, and introduction to rotor acoustics.

Those sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Inderjit Chopra TuTh 9:30am - 10:45am	Seats (Total: 20) JMP 2216
TV01	Inderjit Chopra TuTh 9:30am - 10:45am	Seats (Total: 5) Location: TBA

ENAE636 **Helicopter Dynamics II**

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: ENAE788R or ENAE636. Formerly: ENAE788R.

Aerodynamics, dynamics and aeromechanics of helicopters and tilt rotor aircraft. Experimental testing and mathematical modeling required for the design and analysis of such aircraft.

0101	Anubhav Datta MW 9:30am - 10:45am	Seats (Total: 15) JMP 2222

TV01	Anubhav Datta MW 9:30am - 10:45am	Seats (Total: 5) Location: TBA

ENAE641 Linear System Dynamics

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE432.

Linear systems; state space, multi-input, multi-output models; eigenstructure; controllability, observability, singular value analysis; multivariable Nyquist condition; observer design; introduction to Kalman filtering. Full state feedback techniques including pole placement and LQR/LQG techniques; introduction to loop shaping and robustness.

0101	Robert Sanner TuTh 12:30pm - 1:45pm	Seats (Total: 25) EGR 3102

ENAE651 Smart Structures

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics related to the analysis, design, and implementation of smart structures and systems: modeling of beams and plates with induced strain actuation; shape memory alloys; electro-rheological fluids; magnetostrictor and electrostricter actuators and fiber optic sensors.

0101	Inderjit Chopra TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMP 2216
TV01	Inderjit Chopra TuTh 2:00pm - 3:15pm	Seats (Total: 5) Location: TBA

ENAE655 Structural Dynamics

Credits: 3 Grading Method: Regular, Audit

Advanced principles of dynamics necessary for structural analysis; solutions of eigenvalue problems for discrete and continuous elastic systems, solutions to forced response boundary value problems by direct, modal, and transform methods.

0101	Judah Milgram WF 1:00pm - 2:15pm	Seats (Total: 35) JMP 1109

ENAE673 Aerodynamics of Incompressible Fluids

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate courses in differential equations, incompressible, and compressible flow (ENAE311; and one course from ENAE414; ENME331, OR ENME640, or equivalent). Restriction: Must be in ENGR: MS/PhD-Aerospace Engineering (Master's) program.

Introduces the fundamental concepts of incompressible flows. Topics to be addressed include the conservation equations, potential flow, lift and drag, Navier-Stokes equations, boundary layers and similarity solutions, and solutions to classical problems.

0101	Pino Martin TuTh 9:30am - 10:45am	Seats (Total: 20) EGR 1102

ENAE675 **Unsteady Aerodynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAE414; and permission of instructor. Credit only granted for: ENAE672 or ENAE675. Formerly: ENAE672.

Classical theories of incompressible unsteady aerodynamics with an introduction to modeling techniques. Topics include: unsteady Bernoulli's equation, added mass, the indicial response method, dynamic stall, and modern applications.

0101	Anya Jones TuTh 2:00pm - 3:15pm	Seats (Total: 20) ATL 2352

ENAE684 **Computational Fluid Dynamics I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Aerospace Engineering department.

Partial differential equations applied to flow modelling, fundamental numerical techniques for the solution of these equations, elliptic, parabolic, and hyperbolic equations, elements of finite difference solutions, explicit and implicit techniques. Applications to fundamental flow problems.

0101	James Baeder TuTh 11:00am - 12:15pm	Seats (Total: 20) JMP 2216
TV01	James Baeder TuTh 11:00am - 12:15pm	Seats (Total: 15) Location: TBA

ENAE788C **Selected Topics in Aerospace Engineering; Aircraft Flight Testing**

Credits: 1-3 Grading Method: Regular, Audit

0101	John Tritschler TuTh 6:30pm - 7:15pm	Seats (Total: 15) EGR 1110

ENAE788D **Selected Topics in Aerospace Engineering; Advanced Space Systems Design**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	David Akin	Seats (Total: 8)
	TuTh 11:00am - 12:15pm	SPH 1312

ENAE788K **Selected Topics in Aerospace Engineering; Estimation and Control of Stochastic Systems**

Credits: 3 Grading Method: Regular, Audit

0101	Robert Sanner	Seats (Total: 15)
	MW 2:00pm - 3:15pm	ATL 2316

ENAE788N **Selected Topics in Aerospace Engineering; Hydrodynamic Stability**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

This course will provide students with an overview of the theory of hydrodynamic stability. Various linear and nonlinear instabilities occurring in fluid flows will be analyzed, such as the Kelvin-Helmholtz, Rayleigh-Taylor, Rayleigh-Bernard, and centrifugal instabilities, and the students will learn on how to model them mathematically. Key concepts, such as methods of linear stability, normal modes, energy theory of stability, absolute/convective instability, nonlinear perturbation, bifurcation theory, and transition to turbulence, will also be introduced.

Contact department for information to register for this course.

ENAE788R **Selected Topics in Aerospace Engineering; Hydrodynamic Stability II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENAR788Q or permission of instructor. This course will provide students with an overview of hydrodynamic stability for compressible and three-dimensional boundary layer flows. Both inviscid and viscous instability mechanisms will be explored as well as the effects of wall cooling and heating on the boundary layer stability. Additional considerations relevant for 3D boundary layers will also be considered. Key concepts such as parallel flow stability equations, normal mode equations, the effect of Mach number on viscous instability, receptivity in high-speed wind tunnels, streamwise instability, and crossflow instability will be covered. Various instability problems will be investigated such as rotating disk boundary layers, Falker-Skan-Cooke boundary layers and transonic infinite-span swept-wingboundary layers.

0101	Christoph Brehm	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	ONLINE

ENAE788X **Selected Topics in Aerospace Engineering; Planetary Surface Robotics**

Credits: 1-3 Grading Method: Regular, Audit

0101	David Akin	Seats (Total: 30)
	MW 5:00pm - 6:15pm	CSI 2118

ENAE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENAE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENAE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENBC Biocomputational Engineering Fall 2022

ENBC301 **Introduction to Biocomputational Engineering**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in Biocomputational Engineering major.

Provides practical tools to help Biocomputational Engineering majors to think critically about their goals and career paths and to utilize their major to set their career trajectory.

ESG1	Emily Bailey	Seats (Total: 20)
	W 1:30pm - 2:20pm	BLD4 1119
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC311 **Python for Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH241; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE489A, BIOE442 or ENBC311.

Provides an introduction to structured programming, computational methods, and data analysis techniques with the goal of building a foundation allowing students to confidently address problems in research and industry. Fundamentals of programming, algorithms, and simulation are covered from a general computer science perspective, while the applied data analysis and visualization portion makes use of the Python SciPy stack.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 10:00am - 11:15am	BLD4 3210
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC321 **Machine Learning for Data Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENBC311 and ENBC332. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Instructs students in the fundamentals of machine learning methods through examples in the biological phenomenon and clinical data analysis. This course is designed to share knowledge of real-world data science and aid to learn complex machine learning theory, algorithms, and coding libraries in a simple way. Students will learn the machine learning theory, but they will also get hands-on practice building their models using programming tools such as Python and R.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 2:30pm - 3:45pm	BLD4 4321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC331 **Applied Linear Systems and Differential Equations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE371 or ENBC331.

Applications of linear algebra and differential equations to bioengineering and biomolecular systems. Designed to instruct students to relate mathematical approaches in bioengineering to their physical systems. Examples will emphasize fluid mechanics, mass transfer, and physiological systems.

ESG1	Lan Ma	Seats (Total: 20)
	TuTh 11:30am - 12:45pm	BLD4 4321
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC332 **Statistics, Data Analysis, and Data Visualization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in BIOE241 or approved prior study in Matlab. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE372, ENBC332 or STAT464.

Instructs students in the fundamentals of probability and statistics through examples in biological phenomenon and clinical data analysis. Data visualization strategies will also be covered.

ESG1	Bardia Yousefi	Seats (Total: 20)
	MW 12:00pm - 1:15pm	BLD4 3210
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC341 **Biomolecular Engineering Thermodynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH246 and PHYS260. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE232, ENBC341 or CHBE301.

A quantitative introduction to thermodynamic analysis of biomolecular systems. The basic laws of thermodynamics will be introduced and explained through a series of examples related to biomolecular systems.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 1:30pm - 2:45pm	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC351 **Quantitative Molecular and Cellular Biology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI170 or BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

Provides a quantitative analysis of the behavior of cellular and molecular systems. The focus will be the construction and application of mechanistic models of biomolecular interaction rate processes, which form the foundation of most biological functions. The course will also provide in-depth, practical exploration into data analysis of key bioengineering techniques.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 9:30am - 10:45am	BLD4 1119
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC353 **Synthetic Biology**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI170 or BIOE120. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major. Credit only granted for: BIOE461 or ENBC353.

Introduces students to the scientific foundation and concepts driving the fast-paced field of synthetic biology. This course aims to apply engineering principles, measurement science, and modern molecular biology to increase understanding of complex biological systems and to develop novel applications that address global challenges in health, manufacturing, energy, agriculture, and the environment. Students will explore the principles and applications of the field via in-depth analysis. The course will also address the societal issues of synthetic biology, and briefly examine interests to regulate research in this area.

ESG1	Jarred Callura	Seats (Total: 20)
	TuTh 11:30am - 12:45pm	BLD4 3335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC423 Applied Computer Vision

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENBC311 and ENBC312.

Introduction to the basics and modern deep learning models in the Artificial Intelligence field of computer vision. The course emphasizes applications of computer vision in medical imaging. Computer vision techniques will be demonstrated using software packages implementing bioimage informatics methods.

ESG1	Joe Chalfoun	Seats (Total: 20)
	MW 9:00am - 10:15am	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENBC431 Finite Element Analysis

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH246. Restriction: Permission of ENGR-Fischell Department of Bioengineering department; and must be in the Biocomputational Engineering major.

An introduction to the theory, programming and application of the finite element method that is used to solve problems in engineering analysis and design. Modeling, analysis, and design using the FEA software SolidWorks. The objective of the course is to teach the fundamentals of the finite element method with emphasis on the underlying theory, assumption, and modeling issues as well as providing hands-on experience using finite element software to model, analyze, and design systems.

ESG1	Lan Ma	Seats (Total: 20)
	MW 11:45am - 1:00pm	BLD4 2335
	Restricted to Biocomputational Engineering students at Shady Grove.	

ENCE Engineering, Civil Fall 2022

ENCE100 **Introduction to Civil and Environmental Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

An overview of the department of Civil and Environment Engineering. Students are introduced to the undergraduate curriculum and will be exposed to other undergraduate and graduate students at various points in their program. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

0101	Natasha Andrade	Seats (Total: 132)
	W 1:00pm - 1:50pm	CHM 1402

ENCE200 **Civil Engineering Graphics for Design and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100, MATH141, and ENES102; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the basic principles and fundamentals of civil design, plan interpretation, and plan creation. Development of the knowledge and skills to analyze existing sites, environmental features, and characteristics used to develop a site properly. Introduction of the use of Computer-Aided Drafting (CAD) software in the context of civil and environmental engineering design and applications.

0101	Frank White	Seats (Total: 38)
	MW 2:00pm - 3:15pm	EGR 1156
0201	Frank White	Seats (Total: 38)
	MW 3:30pm - 4:45pm	EGR 1156

ENCE201 **Engineering Information Processing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220 and MATH241; and permission of ENGR-Civil & Environmental Engineering department. Corequisite: MATH246. Credit only granted for: ENCE201 or ENCE203.

Exploration of algorithms for solving problems in several important areas of numerical computing: roots of equations; matrix algebra and the systems of linear equations; function approximation, numerical differentiation and integration; and ordinary differential equations. Issues of solution accuracy, robustness, and efficiency are also considered. Numerical techniques are presented in the context of engineering applications, and example problems are solved using a variety of computer-based tools (primarily MATLAB).

0101	Peter Chang MWF 2:00pm - 2:50pm	Seats (Total: 55) EGR 1108	

ENCE205 **Biology for Civil and Environmental Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH140 or equivalent. Restriction: Must be in the Civil Engineering program; or permission of the Civil and Environmental Engineering Department. Credit only granted for: BIOE120 or ENCE205.

Introduction to the functions and interactions of biological systems in civil and environmental engineering systems in the context of societal issues. The course includes an introduction to biotechnological principles from a quantitative perspective, modern experimental techniques in biotechnology and methods of data analysis. Roles for civil and environmental engineers in society seen from a biotechnological perspective, and the role of biotechnology in civil and environmental engineering will be elucidated. The role of biotechnology in other engineering disciplines will also be discussed.

0101	Birthe Kjellerup Shirtliff TuTh 2:00pm - 2:50pm M 9:00am - 12:00pm	Seats (Total: 12) HBK 0105 EGR 0136	 Lab
0102	Birthe Kjellerup Shirtliff TuTh 2:00pm - 2:50pm M 3:00pm - 6:00pm	Seats (Total: 12) HBK 0105 EGR 0136	 Lab

ENCE215 **Engineering for Sustainability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM135; and permission of ENGR-Civil & Environmental Engineering department.

Engineers have a key role to play in planning, designing, building, and ensuring a sustainable future. In this class, a problem-based approach is used to examine fundamentally-based analyses and approaches for engineering as sustainable society, with a focus on sustainable use of energy and materials, sustainable infrastructure solutions, atmospheric sustainability and sustainable water supply, and human population growth and resource consumption and its implications for sustainability.

0101	Natasha Andrade TuTh 8:00am - 9:15am	Seats (Total: 30) HJP 2242	
0201	Natasha Andrade TuTh 9:30am - 10:45am	Seats (Total: 30) HJP 2242	

ENCE300 **Fundamentals of Engineering Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

Restricted to students in the College of Engineering.

0101	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 10:30am - 12:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) SPH 1303 EGL 0120	Lab
0102	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 12:30pm - 2:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) SPH 1303 EGL 0120	Lab
0201	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 2:30pm - 4:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) SPH 1303 EGL 0120	Lab
0202	Dimitrios Goulias Tu 12:30pm - 2:30pm Th 4:30pm - 6:30pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 18) SPH 1303 EGL 0120	Lab

ENCE302 **Probability and Statistics for Civil and Environmental Engineers**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH246 and ENCE201; and permission of ENGR-Civil & Environmental Engineering department.

Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgment based on uncertain or incomplete data.

Restricted to students in the College of Engineering.

0101	Allison Reilly MWF 2:00pm - 2:50pm	Seats (Total: 40) IRB 0318
0201	Michelle Bensi MWF 2:00pm - 2:50pm	Seats (Total: 30) PHY 1219

ENCE305 **Fundamentals of Engineering Fluids**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

The theoretical bases for fluid statics and dynamics, including the conservation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

0101	Kaye Brubaker MWF 8:00am - 8:50am	Seats (Total: 40) EGR 1104
0102	Michael Galczynski MWF 10:00am - 10:50am	Seats (Total: 40) KEB 1200

ENCE310 **Introduction to Environmental Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS260 and ENCE215; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

0101	Houng Li	Seats (Total: 66)
	TuTh 8:00am - 9:15am	PHY 1201

ENCE320 **Introduction to Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A James Clark School of Engineering. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Principles and techniques of managing engineering projects from the initiation, through planning, execution, monitoring & control, then finally closeout.

Restricted to students in the College of Engineering.

0101	Miroslaw Skibniewski	Seats (Total: 75)
	Th 5:00pm - 7:30pm	CSI 2117

ENCE325 **Introduction to Construction Project Management**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in a major in ARCH-School of Architecture, Planning, & Preservation; or must be in the Construction Project Management minor. And permission of ENGR-Civil & Environmental Engineering department. Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453.

Learn the basic topics in sourcing, planning, financing, designing, contracting, constructing and operating buildings and other facilities in the built infrastructure. Topics include construction economics, design constructability reviews, construction process planning, contracts and procurement strategies, project scheduling and resource utilization, site layout planning, project cost and quality controls, temporary structures, environmental sustainability, project handover procedures, facility operation and management, IT-based tools for construction project and resource management.

0101	Stephen Wooldridge	Seats (Total: 55)
	Th 5:00pm - 7:30pm	EGR 0108

ENCE340 **Fundamentals of Geotechnical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220; and permission of ENGR-Civil & Environmental Engineering department.

Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.

0101	Ahmet Aydilek TuTh 9:30am - 10:45am	Seats (Total: 57) CSI 3117

ENCE353 **Introduction to Structural Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department; and (MATH246 and ENES220).

The basic tools of structural analysis and design. Design loads. Equilibrium of external and internal forces. Shear and moment diagrams in beams and frames. Truss analysis. Influence line diagrams. The slope-deflection method and method of consistent deformation. Matrix stiffness methods for beams, frames and trusses.

Restricted to students in the College of Engineering.

0101	Mark Austin MWF 9:00am - 9:50am	Seats (Total: 60) KEB 1200

ENCE360 **Analysis of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201 and MATH140; and permission of ENGR-Civil & Environmental Engineering department.

Introduction to systems approach and systems analysis in civil and environmental engineering. Introduction to systems analysis tools that facilitate engineering management decision making including optimization and computer simulation. Introduction to linear and nonlinear mathematical optimization including linear and integer programming, elementary nonlinear programming and dynamic programming.

0101	Ali Haghani TuTh 9:30am - 10:45am	Seats (Total: 36) EGR 1156
0102	Ali Haghani TuTh 11:00am - 12:15pm	Seats (Total: 36) EGR 1156

ENCE370 **Introduction to Transportation Engineering and Planning**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE201, PHYS260, and PHYS261; and permission of ENGR-Civil & Environmental Engineering department.

Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

Restricted to students in the College of Engineering.

0101	Paul Schonfeld MWF 1:00pm - 1:50pm	Seats (Total: 60) EGR 1108	

ENCE411 **Environmental Engineering Science**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE310; and permission of ENGR-Civil & Environmental Engineering department.

Introduces the analytical techniques available to assess performance of engineering processes as they relate to water, soil, and air treatment and quality. The basic principles of environmental management, economics of waste treatment, by-product reutilization, and energy cycles are introduced and discussed. Alternative technologies are introduced and evaluated mostly by assessing their potential to reduce waste, minimize energy use, and promote sustainability. Students' activities include, a weekly lab to provide hands-on experience with environmental quality measurements and treatment techniques; on-site visits to regional industries that undertake sustainable practices; and a final research project where experimental design and laboratory techniques are used to assess interactions between technologies and natural systems and their potential for reducing environmental impacts.

0101	Shahrzad Saffari Ghandehari, Marya Anderson TuTh 11:00am - 11:50am W 10:00am - 1:00pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 12) EGR 1102 EGR 0136	Lab
0102	Shahrzad Saffari Ghandehari, Marya Anderson TuTh 11:00am - 11:50am W 2:00pm - 5:00pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 12) EGR 1102 EGR 0136	Lab

ENCE422 **Project Cost Accounting and Economics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn: the fundamentals of accounting; project cost accounting principles as they apply to project management; project cost accounting; and the fundamentals of engineering economics.Topics include: project feasibility analysis; reading and analyzing financial statements; cash management; cash flow analysis; depreciation and taxes; and impact on profitability; the principles of activity based costing; net present value analysis; the framework for project performance measurement, cost performance indices, and earned value analysis.

0101	Qingbin Cui	Seats (Total: 60)
	M 5:00pm - 7:30pm	EGR 0108

ENCE423 **Project Planning, Estimating & Scheduling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor. And permission of ENGR-Civil & Environmental Engineering department.

Learn the fundamentals of project planning, estimating, and scheduling. Understand the concepts of planning; to reduce uncertainty, improve efficiency of the operation, to set and meet objectives, and to provide a basis for monitoring and controlling the work. Be introduced to: the concepts of resource definition, assignment and management, and; the basics of project estimating (pricing) methods including global pricing strategies, types of estimates, pricing processes, overhead and profit, and project financing.Learn the basics of project scheduling including; bar charts, network-based methodologies, and linear scheduling techniques. Emphasis is placed on Critical Path Method (CPM) scheduling, a network based methodology. Be exposed to the use of scheduling software and will actually develop a CPM schedule for an actual construction project as part of a semester project.

Restricted to students in the College of Engineering.

0101	Kenneth O'Connell	Seats (Total: 70)
	Tu 5:00pm - 7:30pm	KEB 1200

ENCE424 **Communication for Project Managers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management minor; or must be in the Project Management minor. Jointly offered with: ENCE614. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman Tu 5:00pm - 7:30pm	Seats (Total: 25) AJC 2119
0102	Shana Webster-Trotman W 5:00pm - 7:30pm	Seats (Total: 25) AJC 2119

ENCE426 **Construction Documentation and BIM Applications in Engineering and Construction**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; or must be in the Construction Project Management Minor; or must be in the Project Management Minor.

Learn the basics of construction documentation methods, with particular emphasis on Building Information Modeling (BIM). Topics include: the fundamentals of assembly, coordination, and maintenance of construction documents and implementation of BIM techniques in the design and construction processes, and; a review of Autodesk, Revit, and Navisworks and other leading BIM software. Lectures from project management faculty supplemented by guest lecturers from the construction industry.

0101	Jason Dreher Tu 3:30pm - 6:00pm	Seats (Total: 40) EGR 1156
0201	Jason Dreher Tu 6:30pm - 9:00pm	Seats (Total: 40) EGR 1156

ENCE430 **Introduction to Infrastructure and Resilience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302; or students who have taken courses with comparable content may contact the department. Corequisite: ENCE360; or students who have taken courses with comparable content may contact the department. Jointly offered with ENCE632. Credit only granted for: ENCE632, ENCE688U, ENCE430 or ENCE489U. Formerly: ENCE489U.

Develops system-level skills for the planning, design, maintenance, and operation of resilient infrastructure systems. Through this course, we will discuss a variety of infrastructure systems, both public and private, and their role in communities before and after disasters. The themes of the course will be grounded in the four phases of emergency management (mitigation, preparedness, response, and recovery) and the role that infrastructure plays in each. Through these applications areas, we will study a variety of conceptual, analytical, and computational models that support informed decision-making for these systems under uncertainty.

0101	Allison Reilly W 3:00pm - 5:40pm	Seats (Total: 25) JMP 2202

ENCE432 **Ground Water Hydrology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE305; and permission of ENGR-Civil & Environmental Engineering department.

Concepts related to the development of the ground water resources, hydrology, hydrodynamics of flow through porous media, hydraulics of wells and basin-wide ground water development. Fundamentals of ground water pollution are introduced.

Restricted to students in the College of Engineering.

0101	Kaye Brubaker MWF 9:00am - 9:50am	Seats (Total: 42) EGR 1104

ENCE433 **Assessment of Natural Hazards for Engineering Applications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302. Jointly offered with ENCE633. Credit only granted for: ENCE433 or ENCE633.

Ensuring the resilience of infrastructure and other engineered systems requires an assessment of the natural hazards to which the systems are exposed. Probabilistic natural hazard assessment evaluates how likely a location is to experience hazard events (e.g., hurricanes or earthquakes) and how likely those events are to cause various impacts (e.g., large surges, intense rainfall, high winds, or ground shaking). This course will review the basic science of natural hazards and provide the foundational concepts of probability and statistics required for developing models to assess the frequency and severity of natural hazards. This course will present methodologies for assessment of multiple types of natural hazards (e.g., seismic, precipitation, riverine, coastal, and wind hazards).

0101	Michelle Bensi M 3:00pm - 5:40pm	Seats (Total: 25) JMP 2202

ENCE441 **Foundation Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

Critical review of classical lateral earth pressure theories, analysis of retaining walls and reinforced earth walls, subsurface explorations, bearing capacity and settlement of shallow foundations, design of deep foundations that includes both pile foundations and drilled shafts.

Restricted to students in the College of Engineering.

0101	Mohamed Aggour TuTh 11:00am - 12:15pm	Seats (Total: 70) EGR 0108	

ENCE444 **Experimental Methods in Geotechnical Structural Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353 and ENCE340; and permission of ENGR-Civil & Environmental Engineering department.

In the geotechnical engineering part of the course, major soils testing and their interpretation including classification, compaction, strength, and compressibility will be undertaken. The structural engineering part of this course covers test planning, loading apparatus, instrumentation, data acquisition and data analysis, as well as basic aspects of structural testing techniques and shake-table test.

0101	Yunfeng Zhang, Ahmet Aydilek Tu 12:30pm - 1:30pm W 1:00pm - 4:00pm	Seats (Total: 15) SPH 0301 EGL 0120	 Lab
0201	Yunfeng Zhang, Ahmet Aydilek Tu 12:30pm - 1:30pm W 1:00pm - 4:00pm	Seats (Total: 15) CHE 2116 EGL 0106	 Lab

ENCE454 **Design of Concrete Structures**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE353; and permission of ENGR-Civil & Environmental Engineering department. Formerly: ENCE451.

Combined bending and compression, development and anchorage of reinforcement, deflections, design of slabs including one-way and two-way, design of footings, retaining walls, introduction to prestressed concrete, design of multi-story buildings.

0101	Pan Panjehpour MWF 11:00am - 11:50am	Seats (Total: 40) CHE 2136	

0201	Pan Panjehpour MWF 10:00am - 10:50am	Seats (Total: 35) MTH 0201	

ENCE466 **Design of Civil Engineering Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit CORE: CS

Prerequisite: Permission of ENGR-Civil & Environmental Engineering department. Restriction: Senior standing. Additional information: Must be taken in the semester in which the student graduates.

A major civil engineering design experience that emphasizes development of student creativity, development and use of design methodologies, evaluation of alternate solutions, feasibility considerations, and detailed system descriptions. Realistic design constraints including economic factors, safety, aesthetics, and reliability will be imposed. Students will work in design project groups and be required to exercise oral and written communication skills.

Restricted to students in the College of Engineering.

0101	Deb Niemeier Tu 2:00pm - 3:15pm Th 3:30pm - 4:45pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 20) EGR 1156 EGR 1156	Lab
0102	Deb Niemeier Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm *Alternating face-to-face/online meeting. See instructor for details.*	Seats (Total: 20) EGR 1156 EGR 1156	Lab

ENCE470 **Highway Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENCE302 and ENCE370; and permission of ENGR-Civil & Environmental Engineering department.

Highway location and design, highway engineering economics, traffic engineering, traffic measurement devices and technologies. Includes discussion of technological advances in traffic flow and capacity, such as signal systems, corridor control, automatic driver information, incident detection and autonomous vehicle operation.

Restricted to students in the College of Engineering.

0101	ShiaauLir Wang MWF 10:00am - 10:50am	Seats (Total: 40) EGR 1104	

ENCE489 **Special Problems in Civil Engineering**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Contact department for information to register for this course.

ENCE489B Special Problems in Civil Engineering; Land-Atmosphere Interactions in Hydrology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Cross-listed with ENCE689B. Credit granted for ENCE489B or ENCE689B.

0101	Barton Forman	Seats (Total: 15)
	TuTh 4:00pm - 5:15pm	EGR 3111

ENCE489L Special Problems in Civil Engineering; Risk Analysis for Engineering

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

Cross-listed with ENCE620, ENRE648M, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub	Seats (Total: 20)
	Tu 2:00pm - 4:40pm	CHE 2116

ENCE602 Project Procurement Management

Credits: 3 Grading Method: Regular, Audit

Fundamental concepts and techniques for project acquisition and procurement are presented. Students are introduced to the PMBOK Guide six-step procurement process and expected to develop an in-depth understanding of project evaluation, planning, financing, contracting, negotiation, and procurement execution. It will also cover emerging methods, principles, and practices in infrastructure project procurement, including Public-Private Partnerships, Carbon project procurement, and Clean Development Mechanism.

0101	Qingbin Cui	Seats (Total: 17)
	M 1:00pm - 3:40pm	JMP 2120

ENCE606 Graduate Introduction to Project Scheduling

Credits: 3 Grading Method: Regular, Audit

Students are taught the basics of project scheduling and the various scheduling approaches that are currently being used in the design and construction industry. Project planning techniques will be covered and basic scheduling methods will be taught including the use of bar charts. Critical Path Method (CPM), Program Evaluation and Review (PERT) and Linear Scheduling (Line of Balance) methods.

0101	Kenneth O'Connell M 4:00pm - 6:40pm	Seats (Total: 25) JMP 2216

ENCE613 Structural Dynamics

Credits: 3 Grading Method: Regular, Audit

Formerly: ENCE653.

Analysis of the dynamic response of structrues and structural components subjected to impact load, transient load, and ground excitations; study of single degree-of-freedom and multi degree-of-freedom systems in classical closed form solution and approximate numerical solution; solution in the frequency domain and the use of finite element method.

0101	Yunfeng Zhang W 5:00pm - 7:30pm	Seats (Total: 25) EGR 3114

ENCE614 Communications for Project Managers

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be enrolled in the A. James Clark School of Engineering or the School of Architecture. Jointly offered with: ENCE424. Credit only granted for: ENCE424 or ENCE614.

Learn the fundamentals of communications for project managers. Emphasis is on interpersonal and group communications; through voice, electronic, and written messages; project cycle and reports and presentations during this cycle; and communications for employment.

0101	Shana Webster-Trotman Tu 5:00pm - 7:30pm	Seats (Total: 5) AJC 2119
0102	Shana Webster-Trotman W 5:00pm - 7:30pm	Seats (Total: 5) AJC 2119

ENCE620 Risk Analysis for Engineering

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENCE302. Credit only granted for: ENCE489L, ENCE620, ENRE648M, or ENSE698R.

Covers quantitative risk analysis and management using probability theory and statistics starting with system definition, hazard and scenario identification, likelihood estimation and consequence assessment, and finishes with economic valuation and microeconomics for informing decision making. It covers the topics: uncertainty, risk, knowledge and ignorance related definitions; natural and anthropogenic hazards and fundamental risk methods; system abstraction and associated complexities; analytical and empirical reliability and resilience estimation for components and systems; consequence, severity and loss analysis and accumulation including property and life; economic valuation; risk-cost-benefit tradeoffs and analysis; microeconomics and socioeconomics in risk analysis for informing decisions; risk management, acceptance, tolerance and finance; data needs and sources; expert-opinion elicitation; applications in engineering, sciences and economics.

Cross-listed with ENCE489L, ENRE648M, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub	Seats (Total: 20)
	Tu 2:00pm - 4:40pm	CHE 2116

ENCE622 **Construction Automation & Robotics**

Credits: 3 Grading Method: Regular, Audit

Covers advanced technologies leading to redesign and partial or full automation of selected construction processes utilizing industrial robotics. Lectures and presentations will cover topics such as basic robotic technology (robot kinematics and dynamics, industrial manipulators, mobility bases, end effectors, sensors, control systems, and robot task programming), design of automated construction processes, selection of means and methods for automated construction processes, robot ergonomics and safety, calculation of costs and benefits of construction robots in selected applications, engineering and economic feasibility of automation and robotics in the construction industry.

PM01	Miroslaw Skibniewski	Seats (Total: 25)
	Class time/details on ELMs	ONLINE
	Weekly video conference: TBA.	

ENCE627 **Project Risk Management**

Credits: 3 Grading Method: Regular

Restriction: Must not have completed ENCE627.

Introduction to identifying, analyzing, assessing, and managing risks inherent to engineering projects. Includes: probability modeling, choice and value theory, schedule and cost risk, risk mitigation and transfer, and contract considerations of project risk. Examples are drawn from construction, software development, systems integration, and other large engineering projects; and cover probability basics, subjective probability, statistical data analysis, introduction to decision theory, Monte Carlo simulation, value of information, and risk-based decision making.

PM01	Gregory Baecher	Seats (Total: 40)
	Class time/details on ELMs	ONLINE
	Weekly video conferences: Thursday 7:00am-8:00am or by arrangement with the instructor.	

ENCE632 Introduction to Infrastructure and Resilience

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENCE302; and ENCE360. Or students who have taken courses with comparable content may contact the department. Credit only granted for: ENCE688U, ENCE632, ENCE489U or ENCE430. Formerly: ENCE688U.

Develops system-level skills for the planning, design, maintenance, and operation of resilient infrastructure systems. Through this course, we will discuss a variety of infrastructure systems, both public and private, and their role in communities before and after disasters. The themes of the course will be grounded in the four phases of emergency management (mitigation, preparedness, response, and recovery) and the role that infrastructure plays in each. Through these applications areas, we will study a variety of conceptual, analytical, and computational models that support informed decision-making for these systems under uncertainty.

0101	Allison Reilly	Seats (Total: 25)
	W 3:00pm - 5:40pm	JMP 2202

ENCE633 Assessment of Natural Hazards for Engineering Applications

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENCE302. Jointly offered with: ENCE433. Credit only granted for: ENCE633 or ENCE433.

Ensuring the resilience of infrastructure and other engineered systems requires an assessment of the natural hazards to which the systems are exposed. Probabilistic natural hazard assessment evaluates how likely a location is to experience hazard events (e.g., hurricanes or earthquakes) and how likely those events are to cause various impacts (e.g., large surges, intense rainfall, high winds, or ground shaking). This course will review the basic science of natural hazards and provide the foundational concepts of probability and statistics required for developing models to assess the frequency and severity of natural hazards. This course will present methodologies for assessment of multiple types of natural hazards (e.g., seismic, precipitation, riverine, coastal, and wind hazards).

0101	Michelle Bensi	Seats (Total: 25)
	M 3:00pm - 5:40pm	JMP 2202

ENCE641 Advanced Foundations Systems

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENCE340; or students who have taken courses with comparable content may contact the department.

Review of soil properties and subsurface exploration, evaluation and design of shallow foundations, including settlement and bearing capacity of spread footings and mats. Discussion of methods of soil improvement. Analysis and design of deep foundations including single pile, pile load testing, pile group actions, and drilled shaft foundations for both vertical and horizontal loads. Load and resistance factor design concepts will be presented.

0101	Mohamed Aggour	Seats (Total: 25)
	Th 5:00pm - 7:30pm	EGR 1102

ENCE650 Process Dynamics in Environmental Systems

Credits: 3 Grading Method: Regular, Audit

Formerly: ENCE636.

The fundamentals of heterogeneous equilibria, rates of environmental reactions, and flow and material transport or presented. Applications of these principles will be presented to small and large scale environmental problems involving liquid, gas, and solid phases. Both natural and engineered environmental systems will be examined.

0101	Allen Davis	Seats (Total: 20)
	TuTh 9:30am - 10:45am	CHE 2140

ENCE651 Chemistry of Natural Waters

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENCE633 or ENCE651. Formerly: ENCE633.

Application of principles from chemical thermodynamics and kinetics to the study and interpretation of the chemical composition of natural waters is rationalized by considering metal ion solubility controls, pH, carbonate equilibria, adsorption reactions, redox reactions and the kinetics of oxygenation reactions which occur in natural water environments.

Cross-listed with MEES698W. Credit only granted for ENCE651 or MEES698W.

0101	Alba Torrents Capdevila	Seats (Total: 20)
	TuTh 8:00am - 9:15am	EGR 1102

ENCE652 Microbiological Principles of Environmental Engineering

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENCE637 or ENCE652. Formerly: ENCE637.

An examination of microbiological principles directly affecting humans and the surrounding environment. Special emphasis is given to the understanding of microbial physiology and in environmental engineering related to water and land systems including aerobic and anaerobic treatment processes involved in nutrient/waste recycling as well as impact of xenobiotic compounds on processes water, soil and sediment.

0101	Birthe Kjellerup Shirtliff TuTh 11:00am - 12:15pm	Seats (Total: 15) EGR 3111

ENCE661 **Project Cost Accounting and Finance**

Credits: 3 Grading Method: Regular, Audit

This course reviews the fundamentals of accounting; examines project cost accounting principles, applications, and impact on profitability; examines the principles of activity based costing; covers the elements involved in cash management; introduces the framework for how projects are financed and the potential impact financing has on the projects; and a framework for evaluating PC based systems and what resources are needed for an effective project cost system.

0101	James Myers Tu 4:00pm - 6:40pm	Seats (Total: 38) JMP 2222

ENCE662 **Introduction to Project Management**

Credits: 3 Grading Method: Regular, Audit

Introduction to project management including: overview and concepts of project management (principles, body of knowledge, strategies); planning successful projects (defining, specifying, delivery options, scheduling, budgeting); implementing (organizing the team, work assignments, team building, effective leadership); executing (performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management); and closeout(performance measurement, maintaining the schedule, adjustments/mid-course corrections, record keeping, status reporting, communications, managing conflict, time management).

0101	John Johnson W 4:00pm - 6:40pm	Seats (Total: 36) AJC 2121
PM01	John Johnson W 4:00pm - 6:40pm	Seats (Total: 24) ONLINE

ENCE664 **Legal Aspects of Engineering Design and Construction**

Credits: 3 Grading Method: Regular, Audit

Examines ways in which the legal system affects the design and construction process. Focuses on contract types and the relationships between the parties in different delivery systems. Covers basics of procurement protocols along with negotiating techniques and strategies. Topics include contract law, the relationships between the parties, tort and negligence law, and the statutory principles affecting construction.

Weekly video conference after 7:50 p.m.

PM01	Thomas Powell, Thomas Barham, Mark Groff	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly video conference: Tuesday 8:00-9:30PM.	

ENCE665 **Management of Project Teams**

Credits: 3 Grading Method: Regular, Audit

Experience has shown that really excellent project managers are not only technically competent but that they have above average skills in human relations and communications. The course will prepare project managers to optimize the utilization of their most important resource: people. Relying primarily on a wide range of research and experience in the Project Team, this course will help guide project managers in building the other skills needed to be truly successful in the competitive Project Team.

0101	Jocelyn Davis, John Johnson	Seats (Total: 18)
	Th 4:00pm - 6:40pm	AJC 2119
PM01	John Johnson, Jocelyn Davis	Seats (Total: 18)
	Th 4:00pm - 6:40pm	AJC 2119

ENCE666 **Cost Engineering and Control**

Credits: 3 Grading Method: Regular, Audit

Analytical techniques to estimate and control project costs, including site investigation, quantity takeoff, work analysis, and bid preparation. Systematic cost control as related to job production and historical data. Includes the fundamentals of different types of cost estimating, the appropriate use of each, and examination of popular software. This course is designed to help students develop the ability to utilize techniques of cost estimating, cost and schedule control and project management as they apply to engineering and construction work. Students will understand why it is crucial to understand the various types of cost estimating and the appropriate use of each, activity-based costing, conceptual estimating and budgeting, unit cost estimating, parametric estimating, detailed estimating, learning curves and progress functions.

PM01	Neil Schulman	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Weekly video conferences: Tuesday 1:00-3:40pm.	

ENCE670 **Highway Traffic Characteristics and Measurements**

Credits: 3 Grading Method: Regular, Audit

The study of the fundamental traits and behavior patterns of road users and their vehicles in traffic. The basic characteristics of the pedestrian, the driver, the vehicle, traffic volume and speed, stream flow and intersection operation, parking, and accidents.

0101	Gang-Len Chang Th 5:00pm - 7:45pm	Seats (Total: 29) HBK 1112

ENCE672 **Regional Transportation Planning**

Credits: 3 Grading Method: Regular, Audit

Factors involved and the components of the process for planning statewide and regional transportation systems, encompassing all modes. Transportation planning studies, statewide traffic models, investment models, programming and scheduling.

0101	Paul Schonfeld Tu 5:00pm - 7:40pm	Seats (Total: 29) EGR 2154

ENCE688O **Advanced Topics in Civil Engineering**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

Contact department for information to register for this course.

ENCE688T **Advanced Topics in Civil Engineering; Disaster Resilience Seminar**

Credits: 1 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

This seminar with address varied topics in identifying, analyzing, assessing, and managing engineered systems resilient to natural, anthropogenic, and other hazards. This seminar series comprises guest lectures and internal faculty and student presentations on topics related to disaster resilience. Examples are drawn from foundational concepts; hazard science; planning, engineering, and design; risk and resilience assessment; and implementation.

0101	Michelle Bensi F 11:00am - 12:00pm	Seats (Total: 25) EGR 1102

ENCE688V **Advanced Topics in Civil Engineering; Smart Mobility and Connected Communities**

Credits: 3

Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature of civil engineering to suit the needs and background of students. May be taken for repeated credit when identified by topic title.

In most recent years, advances in Information science, communication technology, and data analytics have brought significant changes to traditional mobility services. This has resulted in increasing interest from both technology vendors and public authorities in the transition of transportation towards so-called "Smart Mobility". The course will explore strategies to develop smart mobility within the context of integrating civil infrastructures, advanced technologies, and cyberinfrastructures. It will also help students gain a deep understanding of the nature of disruptive innovations in smart mobility and connected communities.

0101	Xianfeng Yang	Seats (Total: 20)
	Tu 1:00pm - 3:40pm	SQH 1101

ENCE689 **Seminar**

Credits: 1-16

Grading Method: Regular, Audit

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE689B **Seminar; Land-Atmosphere Interactions in Hydrology**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Cross-listed with ENCE489B. Credit granted for ENCE489B or ENCE689B.

0101	Barton Forman	Seats (Total: 15)
	TuTh 4:00pm - 5:15pm	EGR 3111

ENCE717 **Bridge Structures**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Formerly: ENCE751.

The design and rating of bridge structures in accordance with the AASHTO WSD, LFD, ALFD, and LRFD specifications. Development of the basic strength and performance requirements as defined within AASHTO, area and various foreign codes. Projects requiring the design, rating and ultimate strength evaluations will be assigned for all of the predominate construction types including: simple and continuous span, straight and horizontally curved, non-composite and composite w and box section superstructure elements.

0101	Chung Fu	Seats (Total: 30)
	Tu 5:00pm - 7:30pm	EGR 0135

ENCE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENCE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Majors only. Other majors require permission of department.

Contact department for information to register for this course.

ENCO Engineering, Cooperative Education — Fall 2022

ENCO099 **Co-Op/Intern Work Experience**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Participation in a cooperative education (co-op) or internship program enables students to apply the theories that they have learned in their traditional classes with paid, supervised, career-related work experience that develops technical and professional work skills. Contact the Engineering Co-op & Career Services Office.

If dropping course, see Withdrawal and Refund of Fees - Special Refund Deadlines in the Financial Information section of the Schedule of Classes.

0101	Liza Lebrun, Veronica Perrigan	Seats (Total: 200)
	Contact instructor or department for details.	

ENEB Embedded Systems & Internet of Things — Fall 2022

ENEB302 **Analog Circuits**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in PHYS260 and PHYS261; and 1 course with a minimum grade of C- from (MATH246, MATH241, MATH240); and permission from the Embedded Systems & Internet of Things program required. Restriction: Must be in the Embedded Systems & Internet of Things program.

Foundations of circuits, focusing on applications including signal amplification, power amplification, instrumentation and filters. Fundamental concepts of analog circuits including analysis methods in time and complex domains, with emphasis on circuit topologies relevant in embedded systems. Intensive application of simulations and hands-on laboratory exercises.

ESG1	Wesley Lawson	Seats (Total: 20)	
	M 10:00am - 12:30pm F 1:00pm - 3:50pm	BLD4 5321 BLD4 5202	Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB340 **Intermediate Programming Concepts and Applications for Embedded Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Completion of approved introductory programming course with a minimum grade of a "C-"; and permission of the Embedded Systems & Internet of Things program required. Restriction: Must be in the Embedded Systems & Internet of Things program.

Principles of programming for embedded systems development. Includes principles of software development in Unix, C and other high level languages, input/output, data types and variables, operators and expressions, program selection, repetition, functions, arrays, strings, introduction to algorithms, software projects, debugging, documentation. Includes hands-on applications in microprocessor environments.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	W 10:00am - 11:40am F 10:00am - 12:50pm	BLD4 5321 BLD4 3202	Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB341 **Introduction to Internet of Things**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

An introduction to the foundations of Internet of Things (IoT), including IoT devices, communications, connection considerations, back-end services/applications, and business models. This course looks at the IoTs as the general theme of physical/real-world things becoming increasingly visible and actionable via Internet and Web technologies. It also covers networking protocols and gateways, security and privacy, data analytics and cloud computing platforms.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)	
	TuTh 1:00pm - 2:15pm Th 2:30pm - 4:30pm	BLD4 3305 BLD4 3202	Discussion
	Restricted to ESIOT students at Shady Grove.		

ENEB344 **Digital Logic Design for Embedded Systems**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Corequisite: ENEB340; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

Hands on approach on foundations of digital logic for embedded systems applications; including input/output, logic gates, Karnaugh maps, latches, flip-flops and state-machines. This course also covers design and analysis of synchronous sequential systems, implementation with PLA's, multiplexers, decoders, encoders, binary arithmetic units such as adders and subtractors, conversions between decimal and arbitrary radix numbers, especially octal, hexadecimal, and binary representations, radix and diminished radix arithmetic, and character codes.

ESG1	Jerry Wu	Seats (Total: 20)	
	Tu 3:00pm - 5:30pm W 1:00pm - 4:00pm	BLD4 5321 BLD4 3202	 Lab
	Restricted to ESIOT students at Shady Grove.		

ENEB346 **Linear Algebra for Machine Learning Applications**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: MATH140. Restriction: Must be in the Embedded Systems & Internet of Things program and must receive permission from the Embedded Systems & Internet of Things program.

Foundations of linear algebra for machine learning and data science applications with emphasis on implementing machine learning data science algorithms in a computer programming environment with linear algebra software tools and libraries as this course aims to provide a hands-on experience and learning environment for students. Students will learn the fundamental concepts in linear algebra that are directly relevant to machine learning and big data modeling and computations. These include vector and matrix operations, determinants, factorization methods, principal component analysis, eigenvalues, and singular value decomposition.

ESG1	Nestor Michael Tiglao	Seats (Total: 20)
	Th 5:30pm - 8:00pm	ONLINE
	Restricted to ESIOT students at Shady Grove.	

ENEB354 **Discrete Mathematics for Information Technology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Restriction: Must be in the Embedded System and Internet of Things program.

Foundations of discrete mathematics for information technology and embedded computing. Topics include sets, relations, functions and algorithms, proof techniques and induction, number theory, counting and combinatorics, and Graph theory.

ESG1	Yavuz Oruc	Seats (Total: 20)	
	Tu 9:30am - 12:00pm	ONLINE	
	Restricted to ESIOT students at Shady Grove.		

ENEB408A **Capstone Design Lab; Capstone Design Lab I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is the first of a two-semester sequence of capstone design laboratory experiences required for Embedded Systems and Internet of Things students. Students will learn the principles of design, project planning, and project management. They will develop an ability to apply engineering solutions considering public health, safety, and welfare. Students will develop a consciousness of ethical and professional responsibilities and recognition of global, cultural, social, environmental, and economic factors in the design process. Students will also develop an ability to communicate in written and oral forms and to function effectively on a team. Projects will involve hardware, including a combination of off-the-shelf and custom-made components supported by hardware descriptive language software. The projects meet specific design challenges with applications in industry, healthcare, transportation, environmental sensing, cyber-security, and machine learning.

ESG1	Romel Gomez	Seats (Total: 20)	
	MW 12:00pm - 12:50pm	BLD4 3335	
	F 10:00am - 1:00pm	BLD4 5210	
	Must be in the ESIOT program at Shady Grove.		

ENEB444 **Operating Systems for Embedded Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB340 and ENEB344; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

Theory, design, implementation and analysis of low-resource computer operating systems for IoT applications. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input-output devices, file systems, and real-time operating systems. Optional topics may include communications protocols and computer security.

ESG1	Manoj Franklin	Seats (Total: 20)	
	Th 10:00am - 12:30pm	ONLINE	
	Th 2:00pm - 2:50pm	ONLINE	Discussion
	Restricted to ESIOT students at Shady Grove.		

ENEB454 **Embedded Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEB353; and permission from the Embedded Systems & Internet of Things program. Restriction: Must be in the Embedded Systems & Internet of Things program.

This course will provide students with the essential knowledge base that will enable them to tackle complex problems encountered in embedded systems design. The course will provide an overview of associated hardware components and software methodologies as well as the tools used in the development of modern embedded systems. Student will be exposed to the theoretical foundations which will be reinforced with carefully selected hands-on laboratory exercises, thereby getting a sense of how the theoretical concepts connect with the real-world embedded systems applications.

ESG1	Jerry Wu M 3:00pm - 5:30pm Tu 1:00pm - 3:00pm *Restricted to ESIOT students at Shady Grove.*	Seats (Total: 20) BLD4 3321 BLD4 3202	 Lab

ENEE Electrical & Computer Engineering Fall 2022

ENEE101 **Introduction to Electrical & Computer Engineering**

(Perm req)

Credits: 3 Grading Method: Regular

Corequisite: MATH140. And corequisite: ENEE140 or CMSC131; or a score of 5 on the A Java AP exam; or a score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and students cannot enroll in ENEE101 and ENES100 in the same semester.

An exploration of topics within Electrical & Computer Engineering (ECE). Students will be introduced to key elements of both the Electrical Engineering and Computer Engineering curriculum, including: circuits, computing systems and software, communications and controls, electrodynamics and waves, microelectronics, signal processing, and power systems.

0101	Romel Gomez F 12:00pm - 12:50pm MW 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0102	Romel Gomez F 12:00pm - 12:50pm MW 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0103	Romel Gomez F 12:00pm - 12:50pm MW 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab

0104	Romel Gomez F 12:00pm - 12:50pm MW 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0105	Romel Gomez F 12:00pm - 12:50pm MW 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0106	Romel Gomez F 12:00pm - 12:50pm TuTh 8:00am - 9:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0107	Romel Gomez F 12:00pm - 12:50pm TuTh 10:00am - 11:50am	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0108	Romel Gomez F 12:00pm - 12:50pm TuTh 12:00pm - 1:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0109	Romel Gomez F 12:00pm - 12:50pm TuTh 2:00pm - 3:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0110	Romel Gomez F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1344	 Lab
0111	Romel Gomez F 12:00pm - 12:50pm TuTh 4:00pm - 5:50pm	Seats (Total: 12) EGR 1202 AVW 1334	 Lab

ENEE140 **Introduction to Programming Concepts for Engineers**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program; or must be in Engineering: Materials Science program.

Introduction to the programming environment: editing, compiling, UNIX, data types and variable scope; program selection, formatted/unformatted input/output, repetition, functions, arrays and strings.

0101	Tudor Dumitras Tu 9:30am - 10:45am WF 8:00am - 8:50am	Seats (Total: 14) ATL 1113 AVW 2446	Discussion
0102	Tudor Dumitras Tu 9:30am - 10:45am WF 9:00am - 9:50am	Seats (Total: 14) ATL 1113 AVW 2446	Discussion
0104	Tudor Dumitras Tu 9:30am - 10:45am WF 11:00am - 11:50am	Seats (Total: 14) ATL 1113 AVW 2446	Discussion
0105	Tudor Dumitras Tu 9:30am - 10:45am WF 1:00pm - 1:50pm	Seats (Total: 14) ATL 1113 AVW 2446	Discussion

ENEE150 **Intermediate Programming Concepts for Engineers**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Permission of ENGR-Electrical & Computer Engineering department. And ENEE140 or CMSC131; or score of 5 on the A Java AP exam; or score of 4 or 5 on the AB Java AP exam; or satisfactory performance on the department's placement exam. Corequisite: MATH140. Restriction: Must be in Engineering: Electrical program. Credit only granted for: ENEE114 or ENEE150. Formerly: ENEE114.

Advanced programming concepts: coding conventions and style; pointers; dynamic memory allocation and data structures; linked lists; graphs; abstract data types; object-oriented design. There will be team-based software projects and group presentations.

0101	Mamadou Wade TuTh 11:00am - 12:15pm F 9:00am - 9:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion
0102	Mamadou Wade TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion
0103	Mamadou Wade TuTh 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 12) EGR 1108 AVW 1454	Discussion

0104	Mamadou Wade TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 12) EGR 1108 AVW 1454	Discussion

ENEE200 **Technology and Consequences: Engineering, Ethics, and Humanity**

Credits: 3 Grading Method: Regular CORE: IE General Education: DSHU, SCIS

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

Electrical Engineering (09090) and Computer Engineering(09991) majors have priority. Non-majors should choose the holdfile option. Department will release available seats to students in the holdfile after the last day of Early Registration for Freshmen.

0101	Timothy Reedy TuTh 9:30am - 10:45am F 9:00am - 10:15am	Seats (Total: 15) ESJ 0215 EGR 3114	Discussion
0102	Timothy Reedy TuTh 9:30am - 10:45am F 10:30am - 11:45am	Seats (Total: 15) ESJ 0215 EGR 3114	Discussion
0103	Timothy Reedy TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 EGR 3114	Discussion
0104	Timothy Reedy TuTh 9:30am - 10:45am F 1:30pm - 2:45pm	Seats (Total: 15) ESJ 0215 EGR 3114	Discussion
0105	Timothy Reedy TuTh 9:30am - 10:45am F 3:00pm - 4:15pm	Seats (Total: 15) ESJ 0215 EGR 3114	Discussion

0201	Nicole Mogul TuTh 3:30pm - 4:45pm F 9:00am - 10:15am	Seats (Total: 15) ESJ 0215 AJC 2119	 Discussion
0202	Nicole Mogul TuTh 3:30pm - 4:45pm F 10:30am - 11:45am	Seats (Total: 15) ESJ 0215 AJC 2119	 Discussion
0203	Nicole Mogul TuTh 3:30pm - 4:45pm F 12:00pm - 1:15pm	Seats (Total: 15) ESJ 0215 AJC 2119	 Discussion
0204	Nicole Mogul TuTh 3:30pm - 4:45pm F 1:30pm - 2:45pm	Seats (Total: 15) ESJ 0215 EGR 3111	 Discussion
0205	Nicole Mogul TuTh 3:30pm - 4:45pm F 3:00pm - 4:15pm	Seats (Total: 15) ESJ 0215 EGR 3111	 Discussion

ENEE205 **Electric Circuits**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in PHYS260; and minimum grade of C- in PHYS261; and permission of ENGR-Electrical & Computer Engineering department. Corequisite: MATH246. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE204 or ENEE205. Formerly: ENEE204.

Design, analysis, simulation, construction and evaluation of electric circuits. Terminal Relationships. Kirchoff's laws. DC and AC steady state analysis. Node and mesh methods. Thevenin and Norton equivalent circuits. Transient behavior of first- and second-order circuits. Frequency response and transfer functions. Ideal op-amp circuits. Diode and transistor circuits.

0101	Romel Gomez MW 2:00pm - 3:15pm F 12:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 11) AJC 2132 AVW 1356 AVW 1356	 Lab Discussion
0102	Romel Gomez MW 2:00pm - 3:15pm Tu 9:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 11) AJC 2132 AVW 1356 AVW 1356	 Lab Discussion

0105	Romel Gomez	Seats (Total: 11)	
	MW 2:00pm - 3:15pm	AJC 2132	
	W 12:00pm - 1:50pm	AVW 1356	Lab
	W 11:00am - 11:50am	AVW 1356	Discussion
0201	Wesley Lawson	Seats (Total: 11)	
	TuTh 9:30am - 10:45am	EGR 1108	
	M 12:00pm - 1:50pm	AVW 1356	Lab
	M 11:00am - 11:50am	AVW 1356	Discussion
0202	Wesley Lawson	Seats (Total: 11)	
	TuTh 9:30am - 10:45am	EGR 1108	
	M 3:00pm - 4:50pm	AVW 1356	Lab
	M 2:00pm - 2:50pm	AVW 1356	Discussion
0204	Wesley Lawson	Seats (Total: 11)	
	TuTh 9:30am - 10:45am	EGR 1108	
	F 9:00am - 10:50am	AVW 1356	Lab
	F 8:00am - 8:50am	AVW 1356	Discussion

ENEE222 **Elements of Discrete Signal Analysis**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH141; and permission of ENGR-Electrical & Computer Engineering department. And minimum grade of C- in ENEE140; or minimum grade of C- in CMSC131. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE222, ENEE241, or MATH242. Formerly: ENEE241.

Discrete-time and continuous-time signals, sampling. Linear transformers, orthogonal projections. Discrete Fourier Transform and its properties. Fourier Series. Introduction to discrete-time linear filters in both time and frequency domains.

0101	Danilo Romero	Seats (Total: 25)	
	MW 2:00pm - 3:15pm	KEB 1110	
	Tu 9:00am - 9:50am	KEB 2107	Lab
	Th 9:00am - 9:50am	KEB 2107	Discussion
0102	Danilo Romero	Seats (Total: 25)	
	MW 2:00pm - 3:15pm	KEB 1110	
	Tu 10:00am - 10:50am	KEB 2107	Lab
	Th 10:00am - 10:50am	KEB 2107	Discussion

0201	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 9:00am - 9:50am F 9:00am - 9:50am	Seats (Total: 25) EGR 1108 KEB 2107 KEB 2107	 Lab Discussion
0202	Adrianos Papamarcou TuTh 12:30pm - 1:45pm W 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) EGR 1108 KEB 2107 KEB 2107	 Lab Discussion

ENEE244 **Digital Logic Design**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in CMSC132 or ENEE150; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Sophomore standing or higher; and must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

The design and analysis of combinational and synchronous sequential systems comprising digital logic gates and flip-flop memory devices; underlying tools such as switching and Boolean algebras and Karnaugh map simplification of gate networks; design and use of decoders, multiplexers, encoders, adders, registers, counters, sequence recognizers, programmable logic arrays (PLAs), read-only memories (ROMS, PROMS), and similar devices. Arbitrary radix conversion.

Engineering College only (04).

0101	Jerry Wu MW 11:00am - 12:15pm Th 9:00am - 9:50am	Seats (Total: 12) KEB 1110 EGR 3111	 Discussion
0102	Jerry Wu MW 11:00am - 12:15pm Th 10:00am - 10:50am	Seats (Total: 12) KEB 1110 EGR 1110	 Discussion
0103	Jerry Wu MW 11:00am - 12:15pm Th 11:00am - 11:50am	Seats (Total: 12) KEB 1110 EGR 2116	 Discussion
0105	Jerry Wu MW 11:00am - 12:15pm Th 1:00pm - 1:50pm	Seats (Total: 12) KEB 1110 EGR 3114	 Discussion

0106	Jerry Wu MW 11:00am - 12:15pm Th 2:00pm - 2:50pm	Seats (Total: 12) KEB 1110 EGR 3114	Discussion
0201	Mamadou Wade TuTh 2:00pm - 3:15pm M 9:00am - 9:50am	Seats (Total: 11) EGR 0108 EGR 1110	Discussion
0202	Mamadou Wade TuTh 2:00pm - 3:15pm M 10:00am - 10:50am	Seats (Total: 11) EGR 0108 EGR 3111	Discussion
0203	Mamadou Wade TuTh 2:00pm - 3:15pm M 11:00am - 11:50am	Seats (Total: 12) EGR 0108 EGR 1110	Discussion
0205	Mamadou Wade TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 12) EGR 0108 EGR 1110	Discussion
0206	Mamadou Wade TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 12) EGR 0108 EGR 3102	Discussion

ENEE245 **Digital Circuits and Systems Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE244. And minimum grade of C- in ENEE150; or minimum grade of C- in CMSC132. And permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.). Design, construction, and characterization of digital circuits containing logic gates, sequential elements, oscillators, and digital integrated circuits. Introduction to digital design and simulation with the Verilog Hardware Description Language (HDL).

0101	Manoj Franklin M 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0102	Manoj Franklin M 10:00am - 10:50am Tu 8:00am - 10:50am	Seats (Total: 12) KEB 1110 AVW 1324	Lab

0103	Manoj Franklin M 10:00am - 10:50am W 11:00am - 1:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0104	Manoj Franklin M 10:00am - 10:50am Th 11:00am - 1:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0105	Manoj Franklin M 10:00am - 10:50am F 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0106	Manoj Franklin M 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0107	Manoj Franklin M 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 12) KEB 1110 AVW 1324	Lab
0108	Manoj Franklin M 10:00am - 10:50am W 8:00am - 10:50am	Seats (Total: 12) KEB 1110 AVW 1324	Lab

ENEE303 **Analog and Digital Electronics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Danilo Romero MW 9:30am - 10:45am F 9:00am - 9:50am	Seats (Total: 25) JMP 2121 CHE 2145	Discussion
0102	Danilo Romero MW 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 25) JMP 2121 EGR 2116	Discussion

0201	Sahil Shah TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 25) CHE 2108 EGR 3102	Discussion
0202	Sahil Shah TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 25) CHE 2108 CHE 2145	Discussion
0301	Timothy Horiuchi TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 25) EGR 1108 EGR 3114	Discussion
0302	Timothy Horiuchi TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 25) EGR 1108 EGR 2116	Discussion

ENEE303H **Analog and Digital Electronics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer).

Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

0101	Timothy Horiuchi TuTh 2:00pm - 3:15pm W 10:00am - 10:50am	Seats (Total: 15) EGR 1108 EGR 1110	Discussion

ENEE307 **Electronic Circuits Design Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE303; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be covered. The laboratory experiments will be tightly coordinated with ENEE303 materials.

0101	Neil Goldsman W 10:00am - 10:50am Tu 11:00am - 1:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab

0102	Neil Goldsman W 10:00am - 10:50am M 11:00am - 1:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab
0103	Neil Goldsman W 10:00am - 10:50am M 2:00pm - 4:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab
0105	Neil Goldsman W 10:00am - 10:50am Tu 2:00pm - 4:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab
0106	Neil Goldsman W 10:00am - 10:50am Th 2:00pm - 4:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab
0107	Neil Goldsman W 10:00am - 10:50am F 11:00am - 1:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab
0108	Neil Goldsman W 10:00am - 10:50am W 2:00pm - 4:50pm	Seats (Total: 8) ONLINE AVW 1330	Lab

ENEE313 **Introduction to Device Physics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE312 or ENEE313.

Basic physics of devices including fields in solids, crystal structure, properties of electrons and holes. Current flow in Si using drift-diffusion model. Properties of the pn junction. Properties of devices including BJTs, FETs and their physical characteristics.

0101	Agisilaos Iliadis MW 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 25) CHE 2108 PHY 2211	Discussion
0102	Agisilaos Iliadis MW 11:00am - 12:15pm F 11:00am - 11:50am	Seats (Total: 25) CHE 2108 MTH 0101	Discussion

ENEE322 **Signal and System Theory**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

ENEE majors (09090) only.

0101	Adrianos Papamarcou TuTh 9:30am - 10:45am F 11:00am - 11:50am	Seats (Total: 20) HBK 0103 CHE 2140	Discussion
0102	Adrianos Papamarcou TuTh 9:30am - 10:45am F 12:00pm - 12:50pm	Seats (Total: 20) HBK 0103 CHE 2140	Discussion
0201	Alejandra Mercado MW 12:30pm - 1:45pm F 2:00pm - 2:50pm	Seats (Total: 20) AJC 2132 EGR 2116	Discussion
0202	Alejandra Mercado MW 12:30pm - 1:45pm F 3:00pm - 3:50pm	Seats (Total: 20) AJC 2132 EGR 2116	Discussion

ENEE322H Signal and System Theory

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH246; and minimum grade of C- in ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering.

0101	Andre Tits TuTh 9:30am - 10:45am M 11:00am - 11:50am	Seats (Total: 15) AJC 2132 Location: TBA	Discussion

ENEE324 Engineering Probability

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH246 and ENEE222; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: DATA400, STAT400 or ENEE324.

Axioms of probability; conditional probability and Bayes' rules; random variables, probability distribution and densities: functions of random variables: weak law of large numbers and central limit theorem. Introduction to random processes; correlation functions, spectral densities, and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation, and digital communications.

ENEE majors (09090) only.

0101	Prakash Narayan MW 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 25) EGR 0108 EGR 2154	 Discussion
0102	Prakash Narayan MW 2:00pm - 3:15pm F 10:00am - 10:50am	Seats (Total: 25) EGR 0108 EGR 2154	 Discussion
0201	Alexander Barg TuTh 9:30am - 10:45am F 11:00am - 11:50am *Click here for more section information.*	Seats (Total: 25) EGR 0108 EGR 2116	 Discussion
0202	Alexander Barg TuTh 9:30am - 10:45am F 12:00pm - 12:50pm *Click here for more section information.*	Seats (Total: 25) EGR 0108 EGR 1102	 Discussion

ENEE350 **Computer Organization**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE244; and 1 course with a minimum grade of C- from (ENEE150, CMSC132); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Formerly: ENEE250.

Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

ENEE majors (09090) only

0101	Yavuz Oruc TuTh 3:30pm - 4:45pm Tu 9:00am - 9:50am	Seats (Total: 20) KEB 1200 EGR 1110	 Discussion
0102	Yavuz Oruc TuTh 3:30pm - 4:45pm Tu 10:00am - 10:50am	Seats (Total: 20) KEB 1200 EGR 1110	 Discussion
0201	Yavuz Oruc TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 20) JMP 2121 EGR 1110	 Discussion
0202	Yavuz Oruc TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 20) JMP 2121 CHE 2116	 Discussion
0301	Rajeev Barua MW 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 20) KEB 1200 EGR 1110	 Discussion
0302	Rajeev Barua MW 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 20) KEB 1200 EGR 1110	 Discussion

ENEE380 **Electromagnetic Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

ENEE majors (09090) only.

0102	Julius Goldhar MW 3:30pm - 4:45pm Tu 10:00am - 10:50am	Seats (Total: 20) KEB 1200 JMP 1202	 Discussion

0201	Edo Waks TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 20) AJC 2121 CHE 2140	Discussion
0202	Edo Waks TuTh 12:30pm - 1:45pm W 10:00am - 10:50am	Seats (Total: 20) AJC 2121 CHE 2140	Discussion

ENEE380H **Electromagnetic Theory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; and minimum grade of C- in MATH241, PHYS270, and PHYS271; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

Introduction to electromagnetic fields. Coulomb's law, Gauss's law, electrical potential, dielectric materials capacitance, boundary value problems, Biot-Savart law, Ampere's law, Lorentz force equation, magnetic materials, magnetic circuits, inductance, time varying fields and Maxwell's equations.

0101	Edo Waks TuTh 12:30pm - 1:45pm W 11:00am - 11:50am	Seats (Total: 6) AJC 2121 CHE 2140	Discussion

ENEE381 **Electromagnetic Wave Propagation**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE380; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in Engineering: Electrical program.

The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, waveguides, radiation and antennas.

ENEE majors only (09090).

0101	Patrick O'Shea TuTh 11:00am - 12:15pm F 12:00pm - 12:50pm	Seats (Total: 20) AJC 2121 CSI 1121	Discussion
0102	Patrick O'Shea TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 20) AJC 2121 CHE 2145	Discussion

ENEE408A **Capstone Design Project:Microprocessor-Based Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: ENEE440 or permission of the instructor. This course provides a team-based experience in the design and implementation of a microprocessor-based system to solve a real-world problem. A product specification or client requirement forms the basis for the student teams development of an initial technical design specification. The team then divides into smaller groups for the parallel development of hardware and software subsystems of the product device. Upon completion and test of the various subsystems, software and hardware components are integrated into the system prototype and the system is tested and documented.

0101	William Hawkins	Seats (Total: 12)	
	Th 9:30am - 10:20am	EGR 3114	
	Contact instructor or department for details.		

ENEE408C **Capstone Design Project: Modern Digital System Design**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: ENEE 350. A real-world digital system design experience that prepares students for careers in FPGA and ASIC design. Student teams use the Verilog hardware description language together with industry-standard simulation and synthesis tools to design medium-complexity digital chips that are ultimately configured and tested on FPGAs with real-world applications. Results from these projects will be presented through in-class presentations and written reports.

0101	Shuvra Bhattacharyya	Seats (Total: 16)	
	Tu 3:30pm - 4:45pm	KEB 2107	
	Th 2:00pm - 4:50pm	KEB 2107	Lab

ENEE408E **Capstone Design Project: Optical System Design**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite(s): ENEE 380. Corequisite(s): ENEE 381. The purpose of this course is to teach optical analysis and design techniques by reference to the performance of many different optical components and systems. Attention will be given to real world design in terms of component selection, optimization, and integration into systems

0101	Joseph Mait	Seats (Total: 30)	
	MW 11:00am - 12:15pm	AJC 2132	

ENEE408I **Capstone Design Project: Autonomous Control of Interacting Robots**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS

Prerequisite: ENEE322; Electrical or Computer Engineering seniors in their last semester. Co-requisite: ENEE460 or ENEE463. The course involves students in the design,development, and application of autonomous robotic systems.The robots are 4 wheeled vehicles with on-board sensors (cameras, acoustic sensors),computers and wireless communications capabilities. The students work in teams to program the the robots to accomplish a task individually and in teams of 2 or more robots. Applications vary from semester to semester, including racing with passing, soccer, search and identify.

0101	Shihab Shamma	Seats (Total: 15)	
	M 10:00am - 10:50am	EGR 2116	
	Th 9:00am - 11:50am	KEB 3209	Lab

ENEE408K **Capstone Design Project; Electric Cars**

(Perm req)

Credits: 3 Grading Method: Regular

Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

Prerequisites: ENEE303, Electrical or Computer Engineering seniors in their last year of their program. Recommended co-requisite: ENEE476 or ENEE475. Restriction: Permission of Electrical & Computer Engineering. A capstone course on the design of electric cars, which will be designedwith the objective to participate in the Formula SAE racing competition.This is a system level design course, which will eventually use a combination of off-the-shelf components. The major components inside theelectric car include lectric motor, power inverter, drive circuit, battery management system, sensors and encoders etc. This course will also discuss level simulation of electric vehicle along with the electrical components in Autonomie software.

0101	Rakesh Resalayyan	Seats (Total: 30)	
	M 12:00pm - 12:50pm	ATL 2428	
	MW 5:00pm - 6:15pm	AVW 1450	Lab

ENEE411 **Advanced Analog and Digital Electronics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE303. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and must have permission of the department. Credit only granted for: ENEE411 or ENEE419A. Formerly: ENEE419A.

Examination of analog and digital device models for analysis, design, and simulation of transistor level electronic circuits, emphasizing Metal Oxide Silicon Field Effect Transistors (MOSFETs); fundamental single transistor configurations; frequency response, feedback, and stability of multi-transistor circuits, such as current mirrors, differential amplifiers, voltage references, operational amplifiers and data converters; complementary Metal Oxide Silicon (CMOS) implementations of static and clocked digital as well as mixed signal circuits.

0101	Pamela Abshire MW 2:00pm - 3:15pm	Seats (Total: 30) EGR 0135	

ENEE416 **Integrated Circuit Fabrication Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE303; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Formerly: ENEE419J.

Characterization of wafers and fabrication steps. Oxide growth, lithography, dopant diffusion, and metal deposition and patterning will be discussed in the lectures and carried out in the lab in fabricating NMOS transistor circuits. The transistor characteristics will be measured and related to the fabrication parameters.

0101	Kevin Daniels Th 11:00am - 12:15pm Tu 9:00am - 12:00pm	Seats (Total: 5) EGR 2154 KEB 2300	 Lab
0102	Kevin Daniels Th 11:00am - 12:15pm W 12:30pm - 3:30pm	Seats (Total: 5) EGR 2154 KEB 2300	 Lab
0103	Kevin Daniels Th 11:00am - 12:15pm M 12:30pm - 3:30pm	Seats (Total: 5) EGR 2154 KEB 2300	 Lab
0104	Kevin Daniels Th 11:00am - 12:15pm W 9:00am - 12:00pm	Seats (Total: 5) EGR 2154 KEB 2300	 Lab
0105	Kevin Daniels Th 11:00am - 12:15pm F 9:00am - 12:00pm	Seats (Total: 5) EGR 2154 KEB 2300	 Lab

ENEE420 **Communication Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE322, ENEE324; and completion of all lower-division technical courses in the EE curriculum.

Fourier series, Fourier transforms and linear system analysis; random signals, autocorrelation functions and power spectral densities; analog communication systems: amplitude modulation, single-sideband modulation, frequency and phase modulation, sampling theorem and pulse-amplitude modulation; digital communication systems pulse-code modulation, phase-shift keying, differential phase shift keying, frequency shift keying; performance of analog and digital communication systems in the presence of noise.

ENEE majors (09090) only.

0101	Mark Shayman	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	CSI 3120

ENEE425 **Digital Signal Processing**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE majors (09090) only.

0101	Mark Shayman	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 2154

ENEE429C **Topics in Communications; Modern Communication Systems Design Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in communications.

Restrictions: Permission of Department Required. Credit granted for ENEE429C or ENEE428. This course will explore the theoretical concepts on signal processing and communication systems by implementing them on actual hardware in real time using DSP and software-defined radio (SDR). Analog communications and digital filter designs will be implemented using Texas Instruments TMS320C6713 DSP Starter Kit (DSK). Digital communication systems will be implemented using Ettus Research s USRP B210 SDR Kit.

Contact department for information to register for this course.

ENEE436 **Foundations of Machine Learning**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: 1 course with a minimum grade of C- from (ENEE324, STAT400); and 1 course with a minimum grade of C- from (ENEE150, CMSC216); and permission of ENGR-Electrical & Computer Engineering department. Restriction: Permission of ENGR-Electrical & Computer Engineering department. And must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; or must be in the ECE Department's Machine Learning notation program. Credit only granted for: ENEE436, ENEE439M, or CMSC422. Formerly: ENEE439M.

A broad introduction to the foundations of Machine Learning (ML), as well as hands-on experience in applying ML algorithms to real-world data sets. Topics include various techniques in supervised and unsupervised learning, as well as applications to computer vision, data mining, and speech recognition.

0101	Sanghamitra Dutta	Seats (Total: 30)
	MW 12:30pm - 1:45pm	AJC 2121

ENEE440 **Microprocessors**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE350; and completion of all lower division technical courses in the EE curriculum. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

ENEE majors only (09090).

0101	William Hawkins	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	EGR 3106

ENEE445 **Computer Laboratory**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206; and minimum grade of C- in ENEE350; and must have earned a minimum grade of C- in all 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

This laboratory course focuses on the hardware/software interface in computer systems. Hands-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

0101	William Hawkins	Seats (Total: 12)	
	Tu 12:30pm - 1:20pm	EGR 3114	
	Th 2:00pm - 5:00pm	AVW 1424	Lab

ENEE446 **Digital Computer Design**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: ENEE350; and completion of all lower-division technical courses in the EE curriculum. Restriction: Permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENEE446 or CMSC411.

Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes. Interrupts, DMA and interfacing.

ENEE majors (09090) only.

0101	Manoj Franklin	Seats (Total: 60)
	MW 2:00pm - 3:15pm	CSI 3117

ENEE457 Computer Systems Security

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE350; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Electrical; Engineering: Computer) ; and permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: CMSC414, ENEE459C or ENEE457. Formerly: ENEE459C.

Theoretical and practical aspects of computer systems security. Topics covered include symmetric/asymmetric encryption, message authentication, digital signatures, access control, as well as network security, web security and cloud security. Students acquire tools necessary for designing secure computer systems and programs and for defending against malicious threats (e.g., viruses, worms, denial of service).

0101	Dana Dachman-Soled	Seats (Total: 60)
	MW 11:00am - 12:15pm	EGR 0108

ENEE459A Topics in Computer Engineering; CAD Tools

(Perm req) Credits: 1 Grading Method: Regular

Selected topics of current importance in computer engineering.

Prerequisite: ENEE245. Verilog or VDHL hardware description languages (HDLs) and graphical printed ciruit design CAD packages are used to create a digital system implemented on a printed circuit-board. A practical design for hardware incorporating a processor and interface devices is to be created by the student. Simulation is used to explore practical issues of system performance and device resource constraints, and a printed-circuit board proof-of-concept will be produced by the student.

0101	William Hawkins	Seats (Total: 12)
	Tu 9:30am - 10:20am Contact instructor or department for details.	EGR 3114

ENEE459B **Topics in Computer Engineering; Reverse Engineering and Hardware Security Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in computer engineering.

Prequisite: ENEE244, ENEE245, and ENEEE350 or permission of the instructor.

0101	Hassan Salmani Tu 5:00pm - 6:15pm Th 5:00pm - 7:00pm	Seats (Total: 24) KEB 1110 AVW 2446	 Lab
0102	Hassan Salmani Tu 5:00pm - 6:15pm W 5:00pm - 7:00pm	Seats (Total: 24) KEB 1110 AVW 2446	 Lab

ENEE459D **Topics in Computer Engineering; Advanced Laboratory of Digital Systems Using SystemsVerilog**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in computer engineering.

Prerequisites: Completion of ENEE245 and ENEE350 with a "C-" or better. SystemVerilog programming expertise is considered an essential skill for any Functional Design/Verification job in the semi- conductor industry and there is a huge demand for such jobs. This course will help students to develop theoretical and practical skills for both design & verification of ASIC/FPGA using SystemVerilog. In this course, you will learn the main features and benefits of the SystemVerilog language and apply the concepts by developing your own test environments.

0101	Jerry Wu W 12:30pm - 1:45pm F 9:00am - 11:50am	Seats (Total: 10) JMP 2120 AVW 1442	 Lab

ENEE459P **Topics in Computer Engineering; Parallel Algorithms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in computer engineering.

Prerequisite: ENEE351 or CMSC351. Credit only granted for ENEE459P, ENEE651, or CMSC751. A presentation of the theory of parallel computers and parallel processing. Models of parallel processing and the relationships between these models. Techniques for the design and analysis of efficient parallel algorithms including parallel prefix, searching, sorting, graph problems, and algebraic problems. Theoretical limits of parallelism.

0101	Uzi Vishkin MW 3:30pm - 4:45pm	Seats (Total: 30) EGR 1104	

ENEE460 **Control Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum. Restriction: Must be in Engineering: Electrical program.

Mathematical models for control system components. Transform and time domain methods for linear control systems. Introductory stability theory. Root locus, bode diagrams and Nyquist plots. Design specifications in the time and frequency domains. Compensation design in the time and frequency domain. Introduction to sampled data systems.

ENEE majors (09090) only.

0101	Andre Tits TuTh 2:00pm - 3:15pm	Seats (Total: 30) EGR 1104	

ENEE467 **Robotics Project Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENAE450 or (ENEE322 and a course which covers academic content similar to that of ENAE450 with approval from the Department of Electrical and Computer Engineering). Restriction: Must be in the Robotics and Autonomous Systems minor; and permission of Department of Electrical and Computer Engineering.

Teaches practical skills to build, control, and deploy robotic systems. Interdisciplinary groups of students develop real-world robotic systems, with emphasis on making a real robot do what one wants it to do.

0101	Sahruday Patti, Rutvik Kevadiya, William Levine, Ivan Penskiy, Kanishka Ganguly MW 3:30pm - 4:20pm M 12:00pm - 2:50pm	Seats (Total: 12) PHY 2106 KEB 3209	Lab
0102	Rutvik Kevadiya, Kanishka Ganguly, Ivan Penskiy, William Levine, Sahruday Patti MW 3:30pm - 4:20pm W 12:00pm - 2:50pm	Seats (Total: 12) PHY 2106 KEB 3209	Lab
0103	William Levine, Rutvik Kevadiya, Sahruday Patti, Ivan Penskiy, Kanishka Ganguly MW 3:30pm - 4:20pm F 10:00am - 12:50pm	Seats (Total: 12) PHY 2106 KEB 3209	Lab

0104	Sahruday Patti, Rutvik Kevadiya, Kanishka Ganguly, Ivan Penskiy, William Levine MW 3:30pm - 4:20pm F 1:00pm - 3:50pm	Seats (Total: 12) PHY 2106 KEB 3209	Lab

ENEE474 **Power Systems**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE322; and completion of all lower-division technical courses in the EE curriculum.

Interconnected power systems, transmission lines, load flow studies, unit commitment and economic dispatch. Three phase networks, machine models. Symmetrical components, fault analysis and unbalanced operation. Power system transients, stability and numerical methods in power system analysis.

0101	Isaak Mayergoyz TuTh 2:00pm - 3:15pm	Seats (Total: 30) KEB 1110

ENEE476 **Renewable Energy**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENEE303; and completion of all lower-divisions ENEE courses with a C- or better. Restriction: Permission of ENGR-Electrical & Computer Engineering department; and must be in one of the following programs (Engineering: Electrical; Engineering: Computer). Credit only granted for: ENEE419R or ENEE476. Formerly: ENEE419R.

Solar Energy Conversion Systems: History of Photovoltaic (PV) Systems, PV Cell, Module and Array Models and Equivalent Circuits, Characteristic Resistance, Fill Factor, Effects of Parasitic Resistances, Mismatch Effects, Shading, Bypass Diodes, Sun Tracking Systems, Maximum Power Point Tracking (MPPT) Techniques, Isolated and Non-isolated Switch-mode DC/DC for PV Systems, Inverter Design and Control, Sizing the PV Panel and Battery Pack in PV Applications. Wind Energy Conversion Systems: Introduction to Wind Energy Harvesting, Horizontal and Vertical Wind Systems, Fundamentals of Wind Energy Harvesting Systems, Variable Speed and Fixed Speed Wind Energy Conversion Systems (WECS), Wind Turbines and Different Electrical Machines in Wind Applications, Induction Machine and Dynamic Model of Induction Machines, Synchronous Generators and Dynamic Model of SG, Control of Wind Energy Conversion Systems.

Alternating face-to-face/online meeting. See instructor for details.

0101	Alireza Khaligh MW 3:30pm - 4:45pm	Seats (Total: 60) EGR 0108

ENEE486 **Optoelectronics Lab**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENEE205; or minimum grade of C- in ENEE206. And minimum grade of C- in PHYS271 and PHYS270; and must have earned a minimum grade of regular (letter) C- in all required 200-level ENEE courses; and permission of ENGR-Electrical & Computer Engineering department. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical).

Hands-on experience in performing measurements in optics and electro-optics. Basics of optics, light detectors, Fourier optics, gratings and spectrometers, pulsed dye lasers, fiber optics, electro-optics, and acousto-optics.

Credit only granted for ENEE486 or ENEE648D.

0101	Mario Dagenais	Seats (Total: 9)	
	W 10:00am - 10:50am Tu 2:00pm - 5:00pm	EGR 0108 AVW 1366	Lab

ENEE488 **Independent Study in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity for independent study projects on advanced electrical and computer engineering topics. These projects typically involve academic investigations of technical themes that are not addressed in the established elective and special topics courses taught by the department on a regular basis. Study plans are tailored to students educational goals but are approved and supervised by faculty.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENEE489F **Topics in Electrophysics; Quantum Boot Camp**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisites: MATH141 and either MATH240 or PHYS274; or equivalent course work. Also offered as CHPH499F, PHYS499F, and CMSC488A. Credit only granted for PHYS499F, ENEE489F, CMSC488A, or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)	
	M 2:00pm - 3:15pm	ATL 3100A	

ENEE489I **Topics in Electrophysics; SOLAR ENERGY CONVERSION**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in electrophysics.

This course covers the scientifically intriguing and industry-relevant optoelectronic devices, including lasers, solar cells, light-emitting diodes (LED), and photodetectors. The course is designed to walk the students through the device working principles, significant components of each device, state of the art of each device, and outlook of these device developments. The course aims to equip the students with necessary device knowledge for future careers on optoelectronic devices, in both academia and industry. There are no prerequisite courses for this course, though some backgrounds in semiconductors and pn junctions will be helpful.

0101	Cheng Gong	Seats (Total: 30)	
	TuTh 3:30pm - 4:45pm	EGR 1104	

ENEE489J **Topics in Electrophysics; Microwave Devices Design & Testing Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Selected topics of current importance in electrophysics.

Prerequisite: Minimum grade of C- or better in ENEE381. An introduction to state of the art design, and testing techniques of RF and microwave devices. Designs, simulations and layout of different devices are performed using the software package ADS (Advance Design System). The course highlights a wide range of engineering applications including terrestrial microwave links, satellite communications, broadcasting, mobile communications and radar.

0101	Kawthar Zaki	Seats (Total: 12)	
	Tu 11:00am - 12:15pm	AVW 2446	
	Th 9:00am - 12:00pm	AVW 2446	Lab

ENEE489N **Topics in Electrophysics; Antenna Design**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in electrophysics.

Prerequisites: ENEE381. Restriction: Permission of Electrical & Computer Engineering Department. A senior level hands-on course to expose students to the principles of antenna design and methods for generation and reception of GHz signals. The course includes theory and computer modeling, as well as fabrication and testing of small scale antennas used in naval communication systems. The course builds upon the concepts of electromagnetic wave introduced in ENEE381. Students will learn the state of the art in microwave instrumentation and techniques, along with simulation tools based on geometry. Students will analyze and test several prototype antenna configurations.

Contact department for information to register for this course.

ENEE490 **Physical Principles of Wireless Communications**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: ENEE381. Restriction: Must be in one of the following programs (Engineering: Computer; Engineering: Electrical). Credit only granted for: ENEE490 or ENEE498B. Formerly: ENEE498B.

0101	Wesley Lawson	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	AJC 2119

ENEE498M **Topics in Electrical Engineering; Mathematical Methods in Electrical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular

Selected topics of current importance in electrical engineering.

Prerequisite: Completion of MATH241 with a "C-" or better; completion of all 200-level ENEE courses. A fundamental understanding of applied mathematical techniques that are essential for solving problems in various fields of electrical and computer engineering. The topics that will be covered are complex variables/analysis, linear algebra, Laplace and Fourier transforms, discrete math, and differential equations. The emphasis is on the application of these mathematical tools to problems that students encounter in the upper-division electrical and computer engineering courses. Computational tools such as Wolfram Alpha and MATLAB will be introduced.

Contact department for information to register for this course.

ENEE499 **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-5 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

ENEE majors (09090) only.

Contact department for information to register for this course.

ENEE499L **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE499R **Senior Projects in Electrical and Computer Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular

The purpose is to provide students with an opportunity to engage in independent research projects on advanced electrical and computer engineering topics. Projects are selected by students and supervised by faculty and other qualified mentors. While students may be required to acquire new skills or information in the course of completing a 499 project, the focus is to conduct an independent investigation of a technical theme by the student. The project may be used to satisfy the advanced lab requirement if it is approved as a primarily experimental research project. In that case, the student will enroll in ENEE499L.

Contact department for information to register for this course.

ENEE600 **Solid State Electronics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE413; and must have background in elementary quantum mechanics. Credit only granted for: ENEE600 or ENEE793. Formerly: ENEE793.

Properties of crystals; energy bands: electron transport theory; conductivity and hall effect; statistical distributions; fermi level: impurities; non-equilibrium carrier distributions; normal modes of lattice vibration and thermal properties of crystals; tunneling phenomena; surface properties.

0101	Agisilaos Iliadis	Seats (Total: 25)
	MW 2:00pm - 3:15pm	EGR 2154

ENEE605 **Design and Fabrication of Micro-Electro-Mechanical Systems (MEMS)**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: ENEE605 or ENEE719R. Formerly: ENEE719R.

The goals are to explore the world of Micro-Electro-Mechanical Systems (MEMS) by understanding its design and fabrication aspects.

0101	Reza Ghodssi	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	JMP 2202

ENEE611 **Integrated Circuit Design and Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: ENEE610. Credit only granted for: ENEE611 or ENEE696. Formerly: ENEE696.

Active and passive elements used in semiconductor structures. Design application of linear and digital integrated circuits.

0101	Timothy Horiuchi	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	EGR 0135

ENEE614 **Radio Frequency VLSI Circuit Design**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Recommended: ENEE611.

This course will give students the knowledge required to analyze, design and lay-out discrete and integrated circuits used in modern radio frequency communications. The course will focus on advanced amplifier concepts, frequency conversion, tuning, and low-noise techniques. Implementation of AM, FM and digital modulation techniques will be covered. Emphasis will be given to CMOS technology as applied to analog VLSI. Advanced applications of SPICE and VLSI design layout tools will be covered.

0101	Neil Goldsman MW 12:30pm - 1:45pm	Seats (Total: 25) ONLINE	

ENEE620 Random Processes in Communication and Control

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENEE324; or students who have taken courses with comparable content may contact the department.

Introduction to random processes: characterization, classification, representation; Gaussian and other examples. Linear operations on random processes, stationary processes: covariance function and spectral density. Linear least square waveform estimating Wiener-Kolmogroff filtering, Kalman-Bucy recursive filtering: function space characterization, non-linear operations on random processes.

0101	Armand Makowski TuTh 12:30pm - 1:45pm F 11:00am - 11:50am	Seats (Total: 25) KEB 1110 JMP 1202	 Discussion
0102	Armand Makowski TuTh 12:30pm - 1:45pm F 5:00pm - 5:50pm	Seats (Total: 25) KEB 1110 EGR 3114	 Discussion

ENEE630 Advanced Digital Signal Processing

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENEE425. Corequisite: ENEE620. Credit only granted for: ENEE624 or ENEE630. Formerly: ENEE624.

This is the first-year graduate course in signal processing. The objective is to establish fundamental concepts of signal processing on multirate processing, parametric modeling, linear prediction theory, modern spectral estimation, and high-resolution techniques.

0101	Tahereh Fazel	Seats (Total: 40)	
	MW 3:30pm - 4:45pm F 10:00am - 10:50am	AJC 2132 CSI 2120	Discussion

ENEE633 **Statistical Pattern Recognition**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH461; or students who have taken courses with comparable content may contact the department; or permission of instructor. Corequisite: ENEE620; or permission of instructor. Credit only granted for: ENEE633 or ENEE739Q. Formerly: ENEE739Q.

The goal is to introduce mathematical pattern analysis and recognition. Emphasis is given to parametric and non-parametric statistical pattern recognition methods and clustering with applications to speech, image and video recognition.

0101	Behtash Babadi	Seats (Total: 90)
	MW 11:00am - 12:15pm	JMP 3201

ENEE641 **Mathematical Foundations for Computer Engineering**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENEE641 or ENEE759F. Formerly: ENEE759F.

Mathematical modeling, design, analysis and proof techniques related to computer engineering. Probability, logic, combinatorics, set theory, and graph theory, as they pertain to the design and performance of computer engineering systems. Techniques for the design and analysis of efficient computational methods from graph theory and networks. Understanding of the limits on the efficiency of such computational methods. Translation from mathematical theory to actual programming. The course emphasizes mathematical rigor.

0101	Uzi Vishkin	Seats (Total: 50)
	MW 12:30pm - 1:45pm	EGR 0108

ENEE646 **Digital Computer Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE446; or students who have taken courses with comparable content may contact the department.

Concepts and techniques for design of computer systems with improved performance. Advanced I/O systems, memory organization, pipeland and parallel processors, bus bandwidth, processor/memory interconnections, cache memory, virtual memory, multiprocessors, performance evaluation.

0101	Donald Yeung	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	AJC 2132

ENEE648D **Advanced Topics in Electrical Engineering; Optoelectronics Lab**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Every semester courses intended for a high degree of specialization are offered by visiting or regular electrical engineering faculty members in two or more of the areas listed in 488. The student should check with the electrical engineering office of graduate studies for a list and the description of the topics offered currently.

Credit only granted for ENEE486 or ENEE648D.

0101	Mario Dagenais	Seats (Total: 3)	
	W 10:00am - 10:50am	EGR 0108	
	Tu 2:00pm - 5:00pm	AVW 1366	Lab

ENEE651 **Parallel Algorithms**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CMSC451; or ENEE641; or students who have taken courses with comparable content may contact the department. Cross-listed with: CMSC751. Credit only granted for: ENEE459P, ENEE651, ENEE759K or CMSC751. Formerly: ENEE759K.

A presentation of the theory of parallel computers and parallel processing. Models of parallel processing and the relationships between these models. Techniques for the design and analysis of efficient parallel algorithms including parallel prefix, searching, sorting, graph problems, and algebraic problems. Theoretical limits of parallelism.

0101	Uzi Vishkin	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 1104

ENEE660 **System Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE460 and MATH463; or students who have taken courses with comparable content may contact the department.

General systems models. State variables and state space. Linearity and its implications. Controllability and observability. State space structure and representation. Realization theory and algorithmic solutions. Parameterizations of linear systems; canonical forms. Basic results from stability theory. Stabilizability. Fine structure of linear multivariable systems; minimal indices and polynomial matrices. Interplay between frequency domain and state space.

0101	John Baras	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	AJC 2121

ENEE662 **Convex Optimization**

Credits: 3 Grading Method: Regular, Audit

Recommended: MATH410. Credit only granted for: ENEE759F or ENEE662.

Focuses on recognizing, solving, and analyzing convex optimization problems. Convex sets, convex functions, convex and quasi-convex optimization problems. Duality theory and optimality conditions. Specific classes of problems including linear optimization (LP), semi-definite optimization (SDP), geometric programming. Algorithms for unconstrained and constrained optimization; interior-point methods. Applications in controls, communications, signal processing, statistics, and other areas.

0101	Sennur Ulukus	Seats (Total: 35)
	MW 2:00pm - 3:15pm	AJC 2121

ENEE680 **Fundamentals of Electromagnetics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Theoretical analysis and engineering applications of Maxwell's equations: boundary value problems of electrostatics and magnetostatics, dielectric and magnetic properties of matter, energy and momentum content of fields, introduction to EM wave propagation.

0101	Ronald Walsworth	Seats (Total: 25)
	MW 3:30pm - 4:45pm	EGR 2116

ENEE690 **Quantum and Wave Phenomena with Electrical Application**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE381; or students who have taken courses with comparable content may contact the department.

Introduction to the Schroedinger equation, matrix formulations of quantum mechanics, identical particles, entanglement, approximation methods, symmetries. Applications to solid-state, atomic, and quantum information science.

0101	Mohammad Hafezi	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	EGR 1104

ENEE698Q **Graduate Seminar; Colloquium Series**

Credits: 1 Grading Method: Sat-Fail

Every semester regular seminars are held in electrical science and in the six areas of specialization offered by the electrical engineering department. They may be taken, by arrangement with the student's advisor, for repeated credit.

0101	Joseph JaJa F 3:30pm - 4:30pm	Seats (Total: 80) KEB 1110

ENEE699 **Independent Studies in Electrical Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Supervised individual study or project, or supervised group study or project, at an advanced level, in electrical engineering.

Contact department for information to register for this course.

ENEE739Z **Advanced Topics in Signal Processing; Computational Imaging**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Cross-listed with CMSC848B. Credit only granted for CMSC848B or ENEE739Z.

0101	Christopher Metzler MW 2:00pm - 3:15pm	Seats (Total: 40) CSI 1121

ENEE759G **Advanced Topics in Computer Engineering; Unsupervised Learning**

Credits: 3 Grading Method: Regular, Audit

Topics, as announced every semester, from the field of computer engineering and its applications.

0101	Joseph JaJa MW 2:00pm - 3:15pm	Seats (Total: 35) AJC 2134

ENEE762 **Stochastic Control**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE620 and ENEE660; or students who have taken courses with comparable content may contact the department.

Stochastic control systems, numerical methods for the Ricatti equation, the separation principle, control of linear systems with Gaussian signals and quadratic cost, non-linear stochastic control, stochastic stability, introduction to stochastic games.

0101	Perinkulam Krishnaprasad TuTh 5:00pm - 6:15pm	Seats (Total: 30) ONLINE

ENEE769M **Advanced Topics in Controls; Robotics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topics selected, as announced every semester, from the field of controls and its applications.

Cross-listed with CMSC756. Credit only granted for CMSC756 or ENEE769M.

0101	Dinesh Manocha	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	IRB 2107

ENEE791 **Quantum Electronics II**

Credits: 3 Grading Method: Regular, Audit

Nonlinear optical effects and devices, tunable coherent light sources: optical parametric oscillator; frequency conversion and dye laser. Ultrashort pulse generation and measurement, stimulated raman effect, and applications. Interaction of acoustic and optical waves, and holography.

0101	Thomas Murphy	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	CSI 3118

ENEE799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENEE889 **Teaching Workshop**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Provide training in education for senior PhD students who contemplate an academic career, and give them the opportunity to gain some teaching experience. Emphasis is on issues that are of special importance in electrical and computer engineering education.

Contact department for information to register for this course.

ENEE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENES100 **Introduction to Engineering Design**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

0301	Brian Danielak MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 37) JMP 1116 ONLINE
0302	Paul Anderson MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 37) JMP 1215 ONLINE
0401	Richard Blanton TuTh 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 36) JMP 1116 ONLINE
0402	Michael Galczynski TuTh 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 38) JMP 1215 ONLINE
0501	Peter Sunderland MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 35) JMP 1116 ONLINE
0502	Joshua Cocker MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 36) JMP 1215 ONLINE
0601	Amy Karlsson TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 35) JMP 1116 ONLINE

0602	Jarred Young TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 36) JMP 1215 ONLINE
0701	Brian Danielak MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 36) JMP 1116 ONLINE
0702	Michael Galczynski MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 38) JMP 1215 ONLINE
0801	Isabel Lloyd TuTh 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 38) JMP 1215 ONLINE
FC01	Joshua Cocker MW 4:30pm - 6:20pm Class time/details on ELMs Contact instructor or department for details. *Restricted to students in Freshmen Connection. This section is for prospective Engineering students only.*	Seats (Total: 36) JMP 1116 ONLINE
FC02	David Kriesberg MW 4:30pm - 6:20pm Class time/details on ELMs Contact instructor or department for details. *Restricted to students in Freshmen Connection.*	Seats (Total: 36) JMP 1215 ONLINE

ENES100A **Introduction to Engineering Design**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSSP

Corequisite: MATH140.

Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

Restriction: Permission of department.

0301	Brian Danielak MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 3) JMP 1116 ONLINE
0302	Paul Anderson MW 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 3) JMP 1215 ONLINE
0401	Richard Blanton TuTh 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 4) JMP 1116 ONLINE
0402	Michael Galczynski TuTh 10:00am - 11:50am Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 2) JMP 1215 ONLINE
0501	Peter Sunderland MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 5) JMP 1116 ONLINE
0502	Joshua Cocker MW 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 4) JMP 1215 ONLINE
0601	Amy Karlsson TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 5) JMP 1116 ONLINE
0602	Jarred Young TuTh 12:00pm - 1:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 4) JMP 1215 ONLINE
0701	Brian Danielak MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 4) JMP 1116 ONLINE

0702	Michael Galczynski MW 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 2) JMP 1215 ONLINE	
0801	Isabel Lloyd TuTh 2:00pm - 3:50pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 2) JMP 1215 ONLINE	
0901	Joshua Cocker MW 4:30pm - 6:20pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 2) JMP 1116 ONLINE	
0902	David Kriesberg MW 4:30pm - 6:20pm Class time/details on ELMs Contact instructor or department for details.	Seats (Total: 4) JMP 1215 ONLINE	

ENES102 **Mechanics I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Aris Cleanthous MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 60) CSI 2117 CSI 2117	 Discussion
0102	Thomas Beigel MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 60) ONLINE CCC 1100	 Discussion
0103	Jarred Young MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	Seats (Total: 60) KEB 1200 KEB 1200	 Discussion

0104	Jarred Young	Seats (Total: 60)	
	MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	PLS 1140 KEB 1200	Discussion

ENES102H **Mechanics I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Formerly: ENES110.

The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, friction, stress/strain, material properties. Vector and scalar methods are used to solve problems.

0101	Patrick McAvoy	Seats (Total: 60)	
	MW 9:00am - 9:50am F 9:00am - 10:50am	EGR 1108 EGR 1108	Discussion
0201	Michael Galczynski	Seats (Total: 60)	
	MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	CCC 1100 ESJ 2309	Discussion

ENES113 **Virtus Living and Learning Community Seminar I**

Credits: 1 Grading Method: Regular

Restriction: Must be in first year Virtus program.

The seminar focuses on personal and professional development related to the field of engineering with a strong emphasis on clarifying career goals and decisions. Additional topics include an introduction to basic tools, undergraduate research opportunities, and campus and engineering resources.

0101	Jarred Young, Alexandros Tzamaras	Seats (Total: 65)	
	W 4:00pm - 5:30pm	ESJ 1202	

ENES115 **FLEXUS Living and Learning Community Seminar I**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a first year FLEXUS Participant.

The seminar focuses on personal and professional development related to the field of engineering with a strong emphasis on clarifying career goals and decisions. Additional topics include an introduction to campus and engineering resources, basic tools, and undergraduate research opportunities. Students will discuss issues of concern through a variety of book readings, self-reflections, and panel discussions with practicing women engineers.

0101	Catherine Hamel, Paige Smith W 4:00pm - 5:30pm	Seats (Total: 65) ESJ 1202

ENES140 **Discovering New Ventures**

Credits: 3 Grading Method: Regular General Education: DSSP

Additional information: This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program.

Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0301	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0401	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0501	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0601	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
FC01	Michael Pratt MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 90) ESJ 2208

ENES181 **Engineering & The Grand Challenges**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must be a new freshman or transfer student.

Introduction to the various fields of engineering and the necessary context for students to fully engage in selected National Academy of Engineering's Grand Challenges such as economical solar energy, carbon sequestration, access to clean water, engineering better medicines, restoring urban infrastructure and personalized learning. The lectures and activities will provide an introduction to the engineering disciplines, NAE Grand Challenges, STEM cultures, and research.

0101	Samuel Graham	Seats (Total: 100)	
	W 4:00pm - 4:50pm	KEB 1110	

ENES190H **Introduction to Design and Quality**

Credits: 4 Grading Method: Regular General Education: DSSP

Restriction: Must be in the Quest program. Cross-listed with: BMGT190. Credit only granted for: BMGT190 or ENES190.

QUEST students learn and apply design practices to design new products and services. Working in multidisciplinary teams, students use quality and process improvement methods to identify, analyze, and recommend solutions to real-world problems.

First course in a sequence of four Total Quality Program Courses. Restricted to QUEST Honors Program students. Cross-listed with ENES190H.

A Fearless Ideas Course from the Academy for Innovation & Entrepreneurship (AIE): http://ter.ps/iamFEARLESS Click here for more information on the Fearless Ideas Courses.

0101	Pamela Armstrong	Seats (Total: 45)	
	TuTh 12:30pm - 1:45pm	TWS 1310	
	Tu 6:00pm - 7:50pm	TWS 1310	Discussion

ENES200 **Technology and Consequences: Engineering, Ethics and Humanity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, SCIS

Credit only granted for: ENEE200 or ENES200.

What makes a technology socially responsible? At UMD, the Fearless Ideas campaign asks us to aim our enthusiasm for technology at big real problems. At the same time, we are coming to appreciate the increasingly complex nature of technological systems as they become integrated into all forms of infrastructure, we realize they may be unpredictable, interdependent on social and biological systems, and have unintended consequences. In this midst of this complexity, people make decisions with far reaching impacts. How then do we follow our passion for technology and innovation but also stay skeptical in a way that allows us to consider the potential and shortcomings of technology? Designed for both engineering and non-engineering students wishing to explore and assess the impact of engineering technology on society and the role of society in generating that technology.

0101	Kuan-Hung Lo TuTh 9:30am - 10:45am F 10:00am - 11:15am	Seats (Total: 16) CCC 1100 ATL 1434	Discussion
0102	Kuan-Hung Lo TuTh 9:30am - 10:45am F 10:00am - 11:15am	Seats (Total: 16) CCC 1100 ATL 1114	Discussion
0103	Kuan-Hung Lo TuTh 9:30am - 10:45am F 12:00pm - 1:15pm	Seats (Total: 16) CCC 1100 ATL 1434	Discussion
0104	Kuan-Hung Lo TuTh 9:30am - 10:45am F 2:00pm - 3:15pm	Seats (Total: 16) CCC 1100 ATL 1434	Discussion
0105	Kuan-Hung Lo TuTh 9:30am - 10:45am F 2:00pm - 3:15pm	Seats (Total: 16) CCC 1100 AJC 2119	Discussion

ENES210 **Entrepreneurial Opportunity Analysis and Decision-Making in 21st Century Technology Ventures**

Credits: 3 Grading Method: Regular CORE: IE General Education: DSSP, SCIS

Credit only granted for: ENES210 or ENES461.

This multi-disciplinary course helps students learn the principles of entrepreneurial opportunity analysis and decision-making in an increasingly dynamic and technically-inclined society. Emphasis is placed on how aspiring technology entrepreneurs can develop their entrepreneurial perspectives to develop winning entrepreneurial plans for their future ventures.

0101	James Green, Michael Pratt M 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE	
0201	James Green, Michael Pratt M 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE	
0301	James Green, Michael Pratt M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE	

0401	James Green, Michael Pratt M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0501	James Green W 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0601	James Green W 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0701	James Green W 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE
0801	James Green W 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 120) ESJ 1202 ONLINE

ENES213 **Virtus Living and Learning Community Seminar III**

(Perm req)

Credits: 1 Grading Method: Regular General Education: DVCC

Prerequisite: ENES113. Restriction: Must be a participant in the second year of the Virtus program.

The seminar focuses on personal, academic and professional success by cultivating leadership skills, developing academic and technical ability and encouraging self awareness, identifying and employing strategies for academic and professional success, further enhancing career development through networking and mentoring and developing awareness of diversity issues.

0101	Xanh Tran Th 4:00pm - 5:30pm	Seats (Total: 45) PHY 1402

ENES215 **FLEXUS Living and Learning Community Seminar III**

(Perm req)

Credits: 1 Grading Method: Regular General Education: DVCC

Prerequisite: ENES115 and ENES116. Restriction: Must be a second year FLEXUS participant.

The seminar focuses on personal, academic and professional success by cultivating leadership skills, developing self-confidence and self-efficacy in academic and technical ability and encouraging self awareness, identifying and employing strategies for academic and professional success, further enhancing career development through networking, mentoring and role modeling, and developing awareness of diversity issues, specifically gender diversity.

0101	Samantha Sabihi Th 4:00pm - 5:30pm	Seats (Total: 49) CHE 2118	

ENES220 **Mechanics II**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering; and must not be in Engineering: Electrical program.

Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

0101	Kevin Calabro MW 9:00am - 9:50am F 9:00am - 10:50am	Seats (Total: 52) CCC 1100 CCC 1205	 Discussion
0301	Robert Bonenberger MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 52) ESJ 2309 ESJ 2309	 Discussion
0401	Thomas Beigel MW 2:00pm - 2:50pm F 2:00pm - 3:50pm	Seats (Total: 52) ONLINE PLS 1130	 Discussion
0501	Robert Bonenberger MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	Seats (Total: 52) CSI 3117 CSI 3117	 Discussion
0601	Kevin Calabro MW 11:00am - 11:50am F 11:00am - 12:50pm	Seats (Total: 52) PLS 1130 CCC 1205	 Discussion
0801	Thomas Brodrick M 5:00pm - 6:50pm W 5:00pm - 6:50pm	Seats (Total: 52) JMP 3201 JMP 3201	 Discussion

ENES221 **Dynamics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in ENES102; and (MATH141 and PHYS161). Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

0101	Ken Kiger	Seats (Total: 53)	
	MW 10:00am - 10:50am F 10:00am - 11:50am	CSI 2117 EGR 0108	 Discussion
0103	Patrick McAvoy	Seats (Total: 53)	
	MW 1:00pm - 1:50pm F 1:00pm - 2:50pm	CCC 1205 ATL 1113	 Discussion
0104	Peter Sandborn	Seats (Total: 53)	
	MW 12:00pm - 12:50pm F 12:00pm - 1:50pm	ATL 1113 EGR 0108	 Discussion
0105	Patrick McAvoy	Seats (Total: 53)	
	MW 2:00pm - 2:50pm F 3:00pm - 4:50pm	CCC 1205 ATL 1113	 Discussion

ENES232 Thermodynamics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261 and PHYS260. Restriction: Must be in a major in ENGR-A. James Clark School of Engineering. Credit only granted for: BIOE232, CHBE301, ENCH300, ENES232, ENME320, or ENME232. Formerly: ENME232 and ENME320.

Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

For all sections of ENES 232 there will be common midterm examinations on periodic Thursdays from 7:00-8:15pm. As such, this time should be held available on the course schedule.

0101	Catherine Hamel	Seats (Total: 60)	
	MW 9:00am - 9:50am F 9:00am - 10:50am Th 7:00pm - 8:15pm	MCB 1207 KEB 1110 Location: TBA	 Discussion Discussion
0301	Catherine Hamel	Seats (Total: 60)	
	MW 1:00pm - 1:50pm F 1:00pm - 2:50pm Th 7:00pm - 8:15pm	KEB 1200 PHY 1201 Location: TBA	 Discussion Discussion

ENES240 **Ethical, Policy and Social Implications of Science and Technology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSSP, SCIS

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: PLCY240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy TuTh 12:30pm - 1:45pm	Seats (Total: 50) ESJ 2212

ENES317 **Introduction to Leadership in Engineering, Science, and Technology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSSP

Restriction: Must be in the Minor in Global Engineering Leadership(#EN09). Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop a comprehensive overview and introduction to leadership and organizational development. Students will reflect on their own leadership experiences, develop a strong foundational knowledge of leadership theory, and advance their capacities in effectively leading teams. Students will connect leadership theory to practice by engaging in case study analysis and critique leadership practices enacted within engineering and technology settings. Students will complete self-assessments to better understand their own leadership strengths and refine their approaches to leadership by incorporating theories covered in this course.

0101	Darren Pierre M 5:00pm - 7:30pm	Seats (Total: 45) HJP 2242

ENES338K **Teaching and Learning about Cultural Diversity through Intergroup Dialogue; Equity and Inclusion in Engineering Design**

Credits: 1	Grading Method: Regular, Pass-Fail, Audit	General Education: DVCC

Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on identity-based topics toward the end of fostering positive, meaningful, and sustained cross-group relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

Restriction: Must be in the A. James Clark School of Engineering and permission of department. Develop a better understanding of the history of engineering, the role it has played in promoting exclusion, and how to advance equity through inclusive engineering design practices. This is a dialogue-based course which will allow you to engage in meaningful dialogue with your peers to consider ways in which you can show up to be a more inclusive engineer.

0201	Suzanne Ashour-Bailey, Paige Smith **Meets August 29, 2022 - October 11, 2022** Tu 4:00pm - 5:50pm	Seats (Total: 20) HJP 2217
0202	Le-Marie Thompson, Ken Kiger **Meets August 29, 2022 - October 12, 2022** W 2:00pm - 3:50pm	Seats (Total: 20) HBK 0108

ENES390H **Designing Innovative Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES190 or BMGT190. Restriction: Must be in the QUEST program. Cross-listed with: BMGT390. Credit only granted for: BMGT390 or ENES390.

QUEST students develop an understanding of complex systems that incorporate elements of business and technical design and analyze how these systems evolve over time and may be shaped by technology disruptions, internal decisions, and external forces. Students apply these concepts to real-world complex systems in a team environment.

Restricted to QUEST Honors Program students. Cross-listed with BMGT390H.

0101	Joseph Bailey TuTh 3:30pm - 4:45pm	Seats (Total: 55) JMZ 0220

ENES397 **Mentoring Multidisciplinary Teams**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT397. Credit only granted for: BMGT397 or ENES397.

QUEST students practice essential skills for mentoring and coaching multidisciplinary teams. These include effective communications, facilitation, conflict resolution, and the ability to motivate. Students will practice these skills as mentors for student teams from BMGT/ENES 190H. In the process, they will strengthen their knowledge of design and quality techniques.

0101	Pamela Armstrong Tu 5:00pm - 7:40pm	Seats (Total: 9) VMH 1415

ENES424 **Engineering Leadership Capstone: Inclusive Leadership in Addressing Organizational & Societal Challenges**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES472 and ENES317. Restriction: Must be in the Global Engineering Leadership minor (#EN09).

The Minor in Global Engineering Leadership is designed to bring together one's understanding of leadership, organizations, culture, and global studies and apply this synthesized learning to a capstone project. The project will provide real-world application of global leadership principles to address an organizational or societal need. Students will utilize an inclusive leadership and global mindset to propose a big idea which brings about a positive organizational or societal change.

0101	Darren Pierre Tu 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 30) IRB 2107 ONLINE

ENES461 **Advanced Entrepreneurial Opportunity Analysis in Technology Ventures**

Credits: 3 Grading Method: Regular

Credit only granted for: ENES210 or ENES461.

Explores the factors that influence entrepreneurial opportunity analysis in technology-based ventures. Uses a cognitive theoretical framework to examine the integration of motivation, emotions and information processing modes to make complex entrepreneurial decisions in technology venture environments.

0101	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE
0201	James Green Class time/details on ELMs	Seats (Total: 250) ONLINE

ENES462 **Marketing High-Technology Products and Innovations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Maryland Technology Enterprise Institute. Additional information: Course may not be used to fulfill any BMGT major or minor program requirement.

Examines the opportunities and challenges of marketing high-technology products in turbulent environments requiring rapid decision making with incomplete information. Explores how innovations are introduced at frequent intervals, research-and-development spending is vital, and there are high mortality rates for both products and businesses.

All questions regarding this course should be directed to mtecheducation@umd.edu.

0101	Josef Hapli	Seats (Total: 23)
	Class time/details on ELMs	ONLINE

ENES467 **Engineering for Social Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not be in Engineering: Mechanical program; and junior standing or higher; and must be in a major in ENGR-A. James Clark School of Engineering. Cross-listed with: ENME467. Credit only granted for: ENES467 or ENME467.

Critical analysis of issues at the intersection of engineering, philanthropy and social change. How engineering design, products and processes have created social change in the past and will do so in the future through both intended and unintended consequences. Topics covered include energy, sustainability and climate change, autonomy, the digital future, low cost engineering, manufacturing, philanthropy, ethics and the impact of electronics on society, among others. Faculty and external experts will engage with students on these topics. Students will broadly engage with organizations involved in using technology for positive social impact.

Cross-listed with ENES467. Credit granted for ENME467 or ENES467. Class will be held off campus at 7878b Diamondback Drive, which is behind The Hotel on Route 1.

0101	Davinder Anand	Seats (Total: 96)
	F 1:00pm - 3:40pm	IRB 1116

ENES472 **Leading Global Teams and Engaging Across Cultures in Business, Engineering, and Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Restriction: Sophomore standing or higher; must be a minor in Global Engineering Leadership (#EN09), Global Poverty (#AG06), Global Terrorism Studies (#BS07), or International Development and Conflict Management (#BS02). Credit only granted for: ENES472, SLLC471, or SLLC473. Additional information: Students not meeting restriction requirements should add themselves to the course holdfile. Restrictions DO NOT apply to winter and summer terms.

Develop global leadership capacities and an understanding of the cultural aspects pertaining to industry and international business. In a globalized world, the ability to work, lead and communicate in culturally diverse settings has become a core component to leadership. Through real-world examples, research, and simulations, students will increase their self-awareness and understanding of culture and how culture influences attitudes, behaviors, and practices at the individual, organizational, or societal levels. Students will develop the skills necessary to navigate, negotiate, and lead cross-cultural engagements and teams. The course content is relevant and applicable to anyone interested in developing cross-cultural leadership competencies and cultivating a global mindset.

0101	Darren Pierre Th 5:00pm - 6:30pm Class time/details on ELMs	Seats (Total: 50) IRB 2107 ONLINE

ENES480 **Engineering Honors Seminar I**

Credits: 1 Grading Method: Regular

Restriction: Must be in College of Engineering Honors; and junior standing or higher.

Introduction to engineering leadership, professionalism, and ethics. Discussions of leadership style, elements of success, professional communication, codes of ethics, handling of ethical dilemmas, and the characteristics of a professional.

0101	Wesley Lawson F 10:00am - 10:50am	Seats (Total: 20) PHY 4222
0102	Wesley Lawson F 1:00pm - 1:50pm	Seats (Total: 20) CHE 2116

ENES489A **Special Topics in Engineering; Applied Quantitative Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in engineering.

Restricted to QUEST Honors Program students. Credit granted for BMGT438A or ENES489A.

0101	Joseph Bailey TuTh 2:00pm - 3:15pm	Seats (Total: 55) TWS 1310

ENES490H **QUEST Capstone Professional Practicum**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: ENES390 or BMGT390. Cross-listed with: BMGT490. Credit only granted for: BMGT490 or ENES490.

The capstone course for the QUEST Honors Program provides students with an opportunity to learn in multidisciplinary teams of business, engineering, and science students in a real-world setting. Companies engage teams of QUEST students with real organizational challenges and dedicate resources to help students address these problems. Student teams must enhance their skills in quality management, process improvement, and systems design and will apply these to add value to a client. In the process, students will improve their teamwork skills.

Fourth course in a sequence of four Total Quality Program Courses. Restricted to QUEST Honors Program students.

0101	Hassan Ibrahim, David Ashley	Seats (Total: 45)
	W 5:00pm - 7:40pm Contact instructor or department for details.	ESJ 1215

ENES491 **Scoping Experiential Learning Projects**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BMGT190 or ENES190. Restriction: Restricted to QUEST Program (TQMP) students. Cross-listed with: BMGT491. Credit only granted for: BMGT491 or ENES491.

QUEST students cultivate relationships with new and current corporate partners and prepare project scopes for QUEST's introductory course, BMGT/ENES 190H, and capstone course, BMGT/ENES 490H. Requires independent work communicating with clients and class visits to a variety of potential project sites.

Cross-listed with BMGT491.

0101	Jessica Roffe	Seats (Total: 9)
	F 10:00am - 12:15pm Contact instructor or department for details.	VMH 3330H

ENES602 **Future Faculty Program Seminar II**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in the Clark School Future Faculty Program.

Effective teaching techniques. Basic principles of education and learning. Developing a course; promoting active learning, problem solving and critical thinking; designing exam and assignments; and communicating effectively with students.

This course is only open to students in the Clark School Future Faculty Program or by permission of Department.

0101	Amy Karlsson	Seats (Total: 25)
	M 2:00pm - 3:15pm	CHE 2116

ENES604 **Future Faculty Program Teaching Practicum**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Prerequisite: ENES602. Restriction: Must be a graduate student in the Clark School Future Faculty Program; and students for whom English is not the native language must pass the Maryland English Institute ITA Evaluation prior to enrolling in this course.

Graduate students will co-teach a course under supervision of a faculty mentor. Graudate students will be involved in all aspects of the course including development of syllabus, presenting lectures, writing and grading examiniations, and evaluating the students in the course.

0101	Min Wu	Seats (Total: 10)
	Contact instructor or department for details.	

ENES660 **Fundamentals of Product Management**

Credits: 3

Grading Method: Regular, Audit

Provides a comprehensive survey of product management and its growing role in producing technology-driven products that customers love. Guides students through the product lifecycle and market lifecycle, diving into the competencies needed at each stage. Topics include startup and corporate strategy, product strategy, vision setting and evangelism, development lifecycle approaches based on customer involvement and product stage, the various types of innovation at each stage of the lifecycle, and how the product manager leads the team through it all. Learn the basics of customer discovery, product discovery, product delivery, and the core-context model for managing products through maturity.

PLM1	John Johnson	Seats (Total: 60)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll.	

ENES664 **Business Modeling and Customer Validation**

Credits: 3

Grading Method: Regular, Sat-Fail

Focuses on how to create and deliver value for customers and extract value for the new venture. Develop business models that encompass the product or service, customers, and the economic engine to meet the venture's financial and growth objectives. Introduces a structured way to think about, analyze, and develop a sound business model that is customer validated.

PLM1	Daniel Gordon	Seats (Total: 60)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Product Management may register without permission. All other graduate students may contact mppm@umd.edu for permission to enroll.	

ENES666 Creative Design, Prototyping, and Testing

Credits: 3 Grading Method: Regular

Transition from creative, innovative, design thinking methods to prototyping and concept testing of products and services. Learn how to translate ideas into marketable offerings to create real value for customers and the new venture. Emphasis is placed on an integrated and interdisciplinary approach to engineering design, concurrent engineering, design for manufacturing, industrial design, and the business of new product development. Topics include design methods, modeling and simulation, material and manufacturing process selection, platform and modular design, mass customization, planning and scheduling, and business issues, teamwork, group dynamics, creativity, and innovation.

PLM1	James Green	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES667 Market Development and Commercialization

Credits: 3 Grading Method: Regular

Provides an orientation to key marketing concepts critical to marketing technology-based products and services. Learn to identify market opportunities, understand customer preferences, evaluate market acceptance, and devise the appropriate going to market strategies for the new venture.

PLM1	Josef Hapli	Seats (Total: 20)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.	

ENES672 Launching Technology Startup Ventures

Credits: 6 Grading Method: Regular

Explores the processes and skills needed to launch and manage technology startup ventures. Learn how to apply best practices for planning, launching, and leading new companies. Discusses a wide range of issues of importance and concern to entrepreneurs, to include how to navigate uncertainty.

PLM1	Mark Komisky **Meets August 29, 2022 - November 18, 2022** Class time/details on ELMs	Seats (Total: 20) ONLINE	

Students in the MPS in Technology Entrepreneurship may register without permission. All other graduate students may contact mpte@umd.edu for permission to enroll.

ENFP Engineering, Fire Protection Fall 2022

ENFP101 **Introduction to Fire Protection Engineering**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP108 or ENFP101. Formerly: ENFP108.

This course will introduce students to the impact of fire on people, property and the environment and methods to mitigate the threat of fire. Student teams will apply the principles of fire behavior and fire safety systems covered in the first half of the course to design, build and test a fire safe, small-scale apartment. A final experiment will be conducted to provide an assessment of the complete designs of each team.

0101	James Milke M 12:00pm - 12:50pm	Seats (Total: 20) JMP 1109	

ENFP250 **Introduction to Life Safety Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP250 or ENFP251. Formerly: ENFP251.

Introduction to fire protection engineering and building regulation focusing on building safety systems, egress system design and evacuation modeling.

0101	Kenneth Isman TuTh 9:30am - 10:45am F 10:00am - 10:50am	Seats (Total: 30) AJC 2134 ESJ 1309	 Discussion

ENFP300 **Fire Protection Fluid Mechanics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246 and ENFP201; and must have completed or be concurrently enrolled in PHYS260, PHYS261. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Presents students with the fundamental properties of fluids and fluid movement. Both static and dynamic fluid problems will be considered with an emphasis on fire protection systems.

0101	Fernando Raffan Montoya	Seats (Total: 35)	
	TuTh 11:00am - 12:15pm W 12:00pm - 12:50pm	ATL 1114 EGR 1104	Discussion

ENFP405 **Structural Fire Protection**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220. Restriction: Must be in Engineering: Fire Protection program; and permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP405 or ENFP621.

Effects of elevated temperature on structural materials; steel, concrete, wood, gypsum, glass and reinforced plastics. Experimental evaluation of fire resistance of building assemblies. Analytical methods to evaluate fire resistance of structural members.

0101	Shuna Ni	Seats (Total: 35)
	TuTh 3:30pm - 4:45pm	ATL 2428

ENFP410 **Special Hazard Suppression Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP310 and ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP410, ENFP610 or ENFP653.

Analysis of application and theory of fire suppression systems. The key elements of fire suppression systems will be discussed along with how they interact for effective fire suppression design. Physical mechanisms for a variety of fire suppression approaches will be discussed including hose streams, sprinklers, water mist, foam, clean agents, and chemical agents.

0101	Kenneth Isman	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	CCC 1111

ENFP415 **Fire Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENFP312. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with ENFP651. Credit only granted for: ENFP415 or ENFP651.

Designed to give students a quantitative understanding of fire behavior. The fundamentals of physics and chemistry of combustion are presented and used to derive key analytical relationships that describe fire growth. Application of these relationships to the analysis of common fire scenarios is emphasized.

0101	Paul Anderson	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	ITV 1111

ENFP425 **Enclosure Fire Modeling**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232, ENFP300, and ENFP312. Restriction: Must be in Engineering: Fire Protection program; and senior standing; and permission of ENGR-Fire Protection Engineering department.

An introduction to enclosure fire dynamics through the development of fire modeling algorithms and the application of computer-based fire modeling techniques. The objectives of the course are: to provide a basic understanding of enclosure fire dynamics with an emphasis on a system-level viewpoint (i.e., a global description of the coupling between combustion dynamics, smoke filling, vent flows and heat transfer); and to provide an introduction to the zone modeling approach. Topics covered include a review of the mathematical formulation of zone models, a discussion of numerical integration of the zone modeling equations (using MATLAB), and an introduction to zone modeling software used by professional engineers (e.g., CFAST).

0101	Stanislav Stoliarov	Seats (Total: 35)
	TuTh 9:30am - 10:45am	JMP 2202

ENFP429 **Independent Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

Senior standing. For ENFP majors only.

Contact department for information to register for this course.

ENFP440 **Smoke Management and Fire Alarm Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed with a C- or better or concurrently be enrolled in ENFP300. Restriction: Permission of ENGR-Fire Protection Engineering department. Jointly offered with: ENFP627. Credit only granted for: ENFP440 or ENFP627.

Analysis of hazard posed by smoke in buildings. Performance characteristics of smoke management systems. Review of analytical design aids. Functional analysis and design of fire detection and alerting systems. Examination and evaluation of code criteria, performance specifications and research.

0101	Raymond Grill, James Milke	Seats (Total: 35)
	MW 9:30am - 10:45am	HBK 0115

ENFP464 **Industrial Fire Safety**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Students must be of senior standing. Restriction: Permission of ENGR-Fire Protection Engineering department. Also offered as: ENFP664. Credit only granted for: ENFP464, ENFP489I, ENFP629I OR ENFP664. Formerly: ENFP489I. Additional information: The course will be taught as a dual senior-level undergraduate course and graduate course.

Designed to introduce students to the basics of process safety with a focus on the methods and techniques that may be utilized when evaluating the existing or proposed safety protection solutions in industrial facilities. An emphasis is placed on properly identifying the hazards that are present, the risk exposure, and how best to address the risk. The foundation is laid by presenting the necessary background information on industrial processes and integrating this information with applicable fire/explosion safety science.

0101	Arnaud Trouve	Seats (Total: 15)
	M 1:00pm - 2:50pm	ANS 0402
	W 1:00pm - 1:50pm	ANS 0402

ENFP489 **Special Topics**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance to fire protection.

For ENFP majors only.

Contact department for information to register for this course.

ENFP601 **Introduction to Fire Protection Engineering**

Credits: 3

Grading Method: Regular, Audit

Additional information: Highly recommended to incoming graduate students to Fire Protection Engineering who have not earned a Bachelor's Degree in Fire Protection Engineering.

The basic concepts of life safety, water-based fire protection systems, building construction, codes and standards along with tenability, fire behavior, and human behavior are introduced along with traditional and performance-based approaches for analyzing human response to fire. Students learn to analyze the egress systems and design basic water-based fire suppression systems.

0101	Kenneth Isman	Seats (Total: 10)
	MW 3:30pm - 4:45pm	CHE 2140

ENFP613 **Advanced Life Safety Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP413 or ENFP613.

Fractional effective dose (FED) methods for predicting time to incapacitation and death of fires for use in fire safety engineering calculations. Physiology and toxicology of fire effluent components, decomposition chemistry of common materials, standard experimental approaches. Predictive models of material production rates. People movement characteristics related to building evacuation. Formulation and application of evacuation models. Human behavior factors affecting response of people to fire situations.

EF01	Jamie McAllister, Steven Gwynne, Aoife Hunt	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ENFP619 **Graduate Seminar**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

0101	Arnaud Trouve	Seats (Total: 5)
	Contact instructor or department for details.	

ENFP621 **Analytical Procedures of Structural Fire Protection**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENFP312. Cross-listed with ENFP621. Credit only granted for: ENFP405 or ENFP621.

Analysis procedures for structural components of wood, steel, concrete, composites. Structural capabilities, modifications under fire induced exposures. Calculations, computer models for predicting fire resistance ratings of structural components.

0101	Shuna Ni	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	ATL 2428

ENFP627 **Smoke Detection and Management**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: ENFP300. Jointly offered with: ENFP440. Credit only granted for: ENFP627 or ENFP440.

Analysis of hazard smoke. Response analysis of smoke detectors based on characteristics of detectors and properties of smoke. Performance characteristics and limitations of smoke management systems. Capabilities and limitations of analytical design aids.

0101	James Milke, Raymond Grill	Seats (Total: 10)
	MW 9:30am - 10:45am	HBK 0115

ENFP629 **Selected Topics**

(Perm req)

Credits: 3-6 Grading Method: Regular, Audit

Current research, studies in fire protection engineering. Future trends and significant changes in research, professional areas. The professional standards process.

Contact department for information to register for this course.

ENFP630 **Diffusion Flames and Burning Rate Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENFP312.

Basic principles of diffusion flames for gaseous, liquid, and solid fuels. Droplet burning, B number, jet combustion, boundary layer combustion, generalized methods.

0101	Peter Sunderland TuTh 12:30pm - 1:45pm	Seats (Total: 15) EGR 1110

ENFP649 **Special Problems**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics selected by the faculty from the current literature to suit the special needs and background of students, or for individual students who have definite plans of individual study.

Prerequisite: permission of department.

Contact department for information to register for this course.

ENFP651 **Advanced Fire Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENFP312. Jointly offered with: ENFP415. Credit only granted for: ENFP629A, ENFP651 or ENFP415. Formerly: ENFP629A.

A review of the basic chemistry and physics necessary to understanding fire dynamics; and of the physics of heat transfer and turbulent fluid flow will be given. The nature and structure of premixed and diffusion flames will be presented.

0101	Paul Anderson TuTh 11:00am - 12:15pm	Seats (Total: 10) ITV 1111
EF01	Stanislav Stoliarov Class time/details on ELMs	Seats (Total: 40) ONLINE

ENFP653 **Advanced Fire Supression**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Fire Protection Engineering department. Credit only granted for: ENFP410, ENFP610, or ENFP653.

Issues related to the suppression of fires and the design of fire suppression systems. Theoretical aspects of fire suppression and extinction are considered to provide the foundation for the practical design of different types of fire suppression systems. Focus on water-based and "clean agent" fire suppression systems, with emphasis on high challenge and special hazard applications. Systems using other agents are introduced, but are not addressed in detail.

0101	Kenneth Isman	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	CCC 1111

ENFP664 **Advanced Industrial Fire Safety**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with ENFP464. Credit only granted for: ENFP489I, ENFP62 9I, ENFP464, or ENFP664. Formerly: ENFP489I and ENFP629I.

This class is designed to introduce students to the basics of process safety with a focus on the methods and techniques that may be utilized when evaluating the existing or proposed safety protection solutions in industrial facilities. An emphasis is placed on properly identifying the hazards that are present, the risk exposure, and how best to address the risk. The foundation is laid by presenting the necessary background information on industrial processes and integrating this information with applicable fire/explosion safety science.

0101	Arnaud Trouve	Seats (Total: 15)
	M 1:00pm - 2:50pm	ANS 0402
	W 1:00pm - 1:50pm	ANS 0402

ENFP799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development and completion of Master's Thesis.

Contact department for information to register for this course.

ENGL English Fall 2022

English as a second language classes are listed under UMEI. For more detailed course descriptions, click here to visit the English department website.

ENGL101 **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students with a TWSE score below 33 must take ENGL 101A in place of ENGL101. Students for whom English is a second language should consider taking ENGL101X in place of ENGL101.

Click here for more course information.

0001	Fatima Seck MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0201
0002	Alan Montroso MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0205
0101	John Rendeiro MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0201
0102	Alan Montroso MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0205
0103	Brianne Friel MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0214
0108	Xiaofang Huang MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0236
0201	Mehdy Sedaghat Payam MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0201
0205	Brianne Friel MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0221
0208	Xiaofang Huang MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1106
0303	Andrea Knowles MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0102
0304	John Rendeiro MWF 11:00am - 11:50am	Seats (Total: 19) KEY 0123
0305	Konstantinos Pozoukidis MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3134

0306	Brianne Friel MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0205
0402	Cecilia Smith MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0102
0403	Konstantinos Pozoukidis MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3134
0405	Brianne Friel MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3252
0406	John Rendeiro MWF 12:00pm - 12:50pm	Seats (Total: 19) KEY 0121
0502	John Rendeiro MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0102
0503	Katherine Hansen MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0125
0504	Sebastian Bronson Boddie MWF 1:00pm - 1:50pm	Seats (Total: 19) KEY 0123
0505	Konstantinos Pozoukidis MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0205
0602	Robert Lucci MWF 2:00pm - 2:50pm	Seats (Total: 19) KEY 0121
0603	Anthony Batts MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 3134
0605	Shannon Zellars Strohl MWF 2:00pm - 2:50pm	Seats (Total: 19) ONLINE
1001	Susan Pramschufer TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0214
1002	Sonney Wolfe TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0221

1102	Sonney Wolfe TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3250
1103	Meghan Collins TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 0208
1104	Anthony Batts TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3136
1109	Brandee Pettus TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1172
1203	Peter Grybauskas TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1106
1204	Sabrina Islam TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0125
1205	Andrew Howard TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0121
1206	Nasim DarouieHaghighi TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0236
1209	Sonney Wolfe TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 3250
1210	Nicole Cuffy TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1107
1301	Gerard Holmes TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0123
1302	Chauncey Dennie TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 3252
1303	Andrew Howard TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0124
1304	Sabrina Islam TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0125

1305	Stephanie Allen TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0223
1306	Nicole Cuffy TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0207
1307	Heather McHale TuTh 12:30pm - 1:45pm *Restricted to students in Institute of Applied Agriculture.*	Seats (Total: 19) JUL 1123
1401	Zachary Frank TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3136
1402	John Macintosh TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1105
1403	Sabrina Islam TuTh 2:00pm - 3:15pm	Seats (Total: 19) KEY 0121
1404	Peter Grybauskas TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 1106
1405	Stephanie Allen TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0224
9001	Radford Skudrna Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9002	Radford Skudrna Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE
9003	Rachel Waugh Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0120 ONLINE
9004	Rachel Waugh Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0120 ONLINE

9005	David Brookshire MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9006	David Brookshire MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9007	David Brookshire MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9008	David Brookshire MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0120 ONLINE
9009	Emily Flamm MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) TWS 0214 ONLINE
9010	Emily Flamm MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) TWS 1107 ONLINE
9011	Emily Flamm MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) TWS 0201 ONLINE
9012	Robert Lucci MW 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) KEY 0121 ONLINE
9013	John Macintosh Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 19) KEY 0123 ONLINE
9014	John Macintosh Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 19) KEY 0123 ONLINE

9015	Susan Pramschufer Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9016	Katherine Joshi Tu 2:00pm - 3:15pm Th 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9017	Paul Cote Th 9:30am - 10:45am Tu 9:30am - 10:45am	Seats (Total: 19) KEY 0123 ONLINE
9018	Amanda Stallings Th 11:00am - 12:15pm Tu 11:00am - 12:15pm	Seats (Total: 19) KEY 0123 ONLINE
9019	Rachel Waugh Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0120 ONLINE
9020	Amanda Stallings Th 2:00pm - 3:15pm Tu 2:00pm - 3:15pm	Seats (Total: 19) KEY 0120 ONLINE
9021	Katherine Joshi Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 19) KEY 0102 ONLINE
9022	Tom Hatcher Th 12:30pm - 1:45pm Tu 12:30pm - 1:45pm	Seats (Total: 19) KEY 0102 ONLINE
FC01	Shannon Zellars Strohl MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ONLINE
FC02	Shannon Zellars Strohl MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ONLINE

FC03	Nahid Ahmadian MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0205
FC04	Alexandria Nunn MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC05	Sydney Sharpstene MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC06	Alexandria Nunn MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0102
FC07	Sydney Sharpstene MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC08	Zachary Frank TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC09	Nia Crawford TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC10	Nia Crawford TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121
FC11	Mariko Carson TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0236
FC12	Brian Davis MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0214

FC13	Brian Davis TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 1320
FC14	Nia Crawford TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0125
FC15	Zachary Frank TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC16	Liam Daley TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC17	Mariko Carson TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0221
FC18	Andrew Howard TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC19	Emilee Durand MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC20	Erica Cochran MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0120
FC21	Erica Cochran MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) JMZ 1120
FC22	Nicole Cuffy TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) TWS 0221

FC23	Emilee Durand MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0123
FC24	Liam Daley TuTh 6:00pm - 7:15pm *Restricted to Freshmen Connection Students.*	Seats (Total: 19) TWS 0205
FC25	Robert Lucci MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) ESJ B0320
FC26	Porter Olsen MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0125
FC27	Nahid Ahmadian MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 19) KEY 0121

ENGL101A **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Students should take ENGL 101A rather than ENGL 101 if their TWSE score (a subscore of the SAT verbal) is 33 or below.

1702	Andrew Howard TuTh 9:30am - 10:45am	Seats (Total: 15) TWS 3132
1703	Andrea Knowles MWF 12:00pm - 12:50pm	Seats (Total: 15) JMZ 0118

ENGL101C **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Restricted to students in the Civicus Program.

0209	Joshua Weiss MWF 10:00am - 10:50am	Seats (Total: 19) SOM 0101
0309	Joshua Weiss MWF 11:00am - 11:50am	Seats (Total: 19) SOM 0101

ENGL101H **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

For general honors students or students with a verbal SAT of 600 or better.

0109	Mike Kolakoski MWF 9:00am - 9:50am	Seats (Total: 19) TWS 1106
0210	Mike Kolakoski MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0205
0310	Mike Kolakoski MWF 11:00am - 11:50am	Seats (Total: 19) KNI 1103
0407	Mike Kolakoski MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1313
0507	Anthony Batts MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0221
1001	Katherine Joshi TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0201
1107	Sabrina Islam TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 1117

ENGL101S **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

This course is restricted to College Park Scholars.

0110	Daniel Sidman MWF 9:00am - 9:50am	Seats (Total: 19) CCC 1105
0211	Daniel Sidman MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1105
0212	Anthony Batts MWF 10:00am - 10:50am	Seats (Total: 19) CCC 1115
0311	Daniel Sidman MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1105
0312	Anthony Batts MWF 11:00am - 11:50am	Seats (Total: 19) CCC 1115
0410	Porter Olsen MWF 12:00pm - 12:50pm	Seats (Total: 19) CCC 1105
0509	Porter Olsen MWF 1:00pm - 1:50pm	Seats (Total: 19) CCC 1105
0607	Paul Cote MWF 2:00pm - 2:50pm	Seats (Total: 19) CCC 1105
1108	Melvette Davis TuTh 9:30am - 10:45am	Seats (Total: 19) ONLINE
1209	Melvette Davis TuTh 11:00am - 12:15pm	Seats (Total: 19) ONLINE
1210	Tom Hatcher TuTh 11:00am - 12:15pm	Seats (Total: 19) ATL 2316
1308	Lara Payne TuTh 12:30pm - 1:45pm	Seats (Total: 19) CCC 1115

1401	Nia Crawford TuTh 2:00pm - 3:15pm	Seats (Total: 19) ATL 1106
9001	Catherine Bayly MF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE
9002	Catherine Bayly MF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 19) CCC 1115 ONLINE

ENGL101X **Academic Writing**

Credits: 3 Grading Method: Regular General Education: FSAW

Additional information: Students must complete this course with a minimum grade of C- in order to fulfill the General Education Fundamental Studies Academic Writing requirement.

An introductory course in expository writing.

Limited to students for whom English is a second language. The following are indications that a student should register for English 101X: 1) an iBT TOEFL score of 100 overall, with a writing section score of at least 24; 2) an IELTS score of 7.0 overall, with a writing score of at least 7.0; 3) satisfactory completion of UMEI 005: Advanced English as a Foreign Language.

2002	Nasim DarouieHaghighi TuTh 9:30am - 10:45am	Seats (Total: 18) TWS 1107
2003	Laura Williams TuTh 12:30pm - 1:45pm	Seats (Total: 18) TWS 3250
2004	Benjamin Baker MWF 10:00am - 10:50am	Seats (Total: 18) TWS 3250
2005	Benjamin Baker MWF 12:00pm - 12:50pm	Seats (Total: 18) TWS 3250
2007	Benjamin Baker MWF 11:00am - 11:50am	Seats (Total: 18) TWS 3250

ENGL120 **Acting Human: Shakespeare and the Drama of Identity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, SCIS

Shakespeare's ideas of dramatic realism studied through close examination of literary and dramatic techniques. How Shakespeare generates the fiction of a living, thinking person in the space of five acts, and how readers participate in the making of that fiction. Some attention to Shakespeare on film and what the playwright can teach us about different media.

0101	Gerard Passannante MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion
0102	Gerard Passannante MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion
0103	Gerard Passannante MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion
0104	Gerard Passannante MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 0236	 Discussion

ENGL126 **Why Fiction Matters**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP, SCIS

Consider how short stories, novellas, and novels are vital to understanding our world and ourselves. Read and analyze a diverse range of twentieth- and twenty-first-century fiction, and apply the techniques of form and craft to your own experiments in fiction writing. Use critical analysis and hands-on creative experimentation to explore how fiction helps us understand the past, engage in the present, and build a better future.

0101	Rion Scott MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 24) TWS 1100 TWS 1106	 Discussion
0102	Rion Scott MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0221	 Discussion
0103	Rion Scott MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 24) TWS 1100 TWS 1107	 Discussion

0104	Rion Scott	Seats (Total: 24)	
	MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	TWS 1100 TWS 1106	Discussion

ENGL143C **Visualizing Knowledge: From Data to Images**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Explores how technology and people shape our current age of information through the various forms of visually representing information. Visualizations do not show us things that are evident--visualizations make things evident. We will thus examine the history of visualization practices, the theories of image-making that guide their production, and the current state of the art. Students will engage critically with a wide range of information visualization practices to gain an understanding of the work involved in producing them and their histories. Students will also seek out contemporary visualizations, interact with the practitioners who produce them, and produce their own visualization as a response or critique.

Restricted to students in Carillon Communities.

0101	Oliver Gaycken	Seats (Total: 48)	
	MW 2:00pm - 3:15pm	TWS 0236	

ENGL154 **Race, Children's Television, and the Legacies of Jim Henson**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

Credit only granted for: ENGL154 or ENGL439J. Formerly: ENGL439J.

How do children form ideas about race from television? We will approach this question by studying representations of race in children's television from the founding of the animation industry in the 1910s to educational programming epitomized by Sesame Street and the work of Jim Henson. We will also explore representations of race in the "Saturday Morning Cartoon Lineup" and in the subsequent proliferation of computer-generated images, gifs, and memes. Students will visit archives on campus pertaining to Jim Henson's work and reflect on what they find. Assignments will include a paper focused on critical analysis and self-reflection, and students will have the option of completing a multimedia project featuring video production, puppet making, or another creative means of producing a lesson for children.

0101	Chad Infante	Seats (Total: 24)	
	MW 12:00pm - 12:50pm F 11:00am - 11:50am	TWS 1100 TWS 1106	Discussion
0102	Chad Infante	Seats (Total: 24)	
	MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	TWS 1100 TWS 0205	Discussion

0103	Chad Infante MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 24) TWS 1100 TWS 0214	Discussion
0104	Chad Infante MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 24) TWS 1100 TWS 0214	Discussion

ENGL201 **Inventing Western Literature: Ancient and Medieval Traditions**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Wide range of texts, genres, and themes from ancient and medieval Western traditions. Study of cultural, historical, and artistic forces shaping traditions, and the influence and relevance of those traditions to life in twenty-first century.

Contact department for information to register for this course.

ENGL202 **Inventing Western Literature: Renaissance to Modern**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Wide range of texts from the Renaissance to the 21st century. Themes and literary techniques in the evolution of Western literature. Print publication, industrialization, questioning of religious, political, intellectual, and cultural authority.

Contact department for information to register for this course.

ENGL211 **English Literature: Beginnings to 1800**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, Milton; eighteenth-century satire, drama, novels.

Contact department for information to register for this course.

ENGL222 **American Literature: 1865 to Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Surveys American writing from the Civil War through the Cold War. Authors such as Clemens, Frost, Hurston, Bellow.

0301	Diana Proenza TuTh 9:30am - 10:45am	Seats (Total: 30) KNI 1103

ENGL233 **Introduction to Asian American Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: AAST233. Credit only granted for: ENGL233 or AAST233.

A survey of Asian American literature with an emphasis on recurrent themes and historical context.

0101	James Rankin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	CHM 2201

ENGL234 **African-American Literature and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: AASP298L. Credit only granted for: ENGL234 or AASP298L.

An exploration of the stories black authors tell about themselves, their communities, and the nation as informed by time and place, gender, sexuality, and class. African American perspective themes such as art, childhood, sexuality, marriage, alienation and mortality, as well as representations of slavery, Reconstruction, racial violence and the Nadir, legalized racism and segregation, black patriotism and black ex-patriots, the optimism of integration, and the prospects of a post-racial America.

Cross-listed with AASP298L. Credit will be granted for one of the following: AASP298L or ENGL234.

0201	Fredrick Cherry Jr	Seats (Total: 30)
	MWF 12:00pm - 12:50pm	KEY 0125

ENGL240 **Introduction to Fiction, Poetry, and Drama**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL

Readings in the novel, short story, poetry and drama.

Contact department for information to register for this course.

ENGL243 **What is Poetry?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

An exploration of arguably the most complex, profound, and ubiquitous expression of human experience. Study through close reading of significant forms and conventions of Western poetic tradition. Poetry's roots in oral and folk traditions and connections to popular song forms.

0201	Vessela Valiavitcharska	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	EDU 2119

ENGL244 **The Play's the Thing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Exploration of drama through a consideration of plot, narrative flow, analytical flow, staging, performance, manuscript and printing history, text and textual change over time, and interpretation. Plays will be approached as public attempts to understand what it means to be alive.

0101	Garth Libhart TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 0236	

ENGL245 **Film Form and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

Cross-listed with: CINE245. Credit only granted for: ENGL245, CINE245 or FILM245. Formerly: FILM245.

Introduction to film as art form and how films create meaning. Basic film terminology; fundamental principles of film form, film narrative, and film history. Examination of film technique and style over past one hundred years. Social and economic functions of film within broader institutional, economic, and cultural contexts.

0101	Mauro Resmini MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion
0102	Mauro Resmini MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion
0103	Mauro Resmini MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) TWS 0320 TWS 0201	 Discussion
0104	Mauro Resmini MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 TWS 1107	 Discussion
FC01	Porter Olsen M 6:00pm - 7:15pm Class time/details on ELMs	Seats (Total: 24) KEY 0125 ONLINE	

ENGL250 **Reading Women Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL, D | General Education: DSHU, DVUP

Cross-listed with: WGSS255. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Annika Thiem	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TWS 0236

ENGL254 **Introduction to Humanities, Health, and Medicine**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Restriction: Permission of ARHU-English Department. Cross-listed with: ARHU230, HIST219N, WGSS230. Credit only granted for: ARHU230 , ENGL289C, ENGL254, ARHU298A, HIST219N, or WGSS230.

An overview of the historical, cultural, ethical, and spiritual dimensions of medicine, human health, disease, and death from the points of view of various humanistic disciplines.

0101	Robert Lucci	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	SQH 2113

ENGL255 **Literature of Science and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Examines science and technology through the lens of British and American literature, primarily between 1800 and the present. Readings from early natural and experimental philosophers of the Scientific Revolution and Enlightenment. How literary works represent the ethics of science and technology; beneficial developments of science, and also heavy toll of industrialization. Writers studied may include Francis Bacon, Mary Shelley, Charles Darwin, H.G. Wells, Albert Einstein, Aldous Huxley, Richard Feynman, Philip K. Dick, Octavia Butler, Michael Frayn, and Tom Stoppard.

0101	Elizabeth Catchmark	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0121

ENGL256 **Fantasy Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

How fantasy employs alternate forms of representation, such as the fantastical, estranging, or impossible, which other genres would not allow. Through novels, short stories, graphic novels, and film, traces fantasy's roots in mythology and folklore, then explores how modern texts build upon or challenge these origins. Examination of literary strategies texts use to represent the world through speculative modes. How to distinguish fantasy from, and relate it to, other genres such as science fiction, horror, fairly tales, and magical realism. Fantasy's investment in world-building, history, tradition, and categories of identity such as race, class, and gender. How fantasy, as a genre, form, and world-view, is well-suited to our contemporary reality.

0101	Paul Cote MWF 12:00pm - 12:50pm	Seats (Total: 30) ASY 3211

ENGL257 **Children's Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Literature of the nineteenth through the twenty-first century concerned with, and written for, children and young adults. How such narratives speak to themes of changing social, religious, political, and personal identity. Through poetry, novels, graphic novels, and film, explores how children's tales encapsulate and reflect on human existence, while pushing boundaries of what constitutes "children's literature" and what exactly defines the "child." Considers questions of literary classification through investigation of political and religious issues, gender politics, animal rights, social justice, race, war, and what it means to "grow up."

0101	Annemarie Ewing MW 3:30pm - 4:45pm	Seats (Total: 30) TWS 0201
FC01	Peter Witte MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 18) JMZ 1122

ENGL262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with: JWST262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano MW 2:00pm - 3:15pm	Seats (Total: 25) ESJ B0322

ENGL265 **LGBTQ+ Literatures and Media**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Restriction: Must not have completed LGBT265. Cross-listed with: LGBT265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0101	Elizabeth Dinneny TuTh 12:30pm - 1:45pm	Seats (Total: 30) JMZ 0103
0201	Aaron Bartlett TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1107

ENGL269A **Special Topics in Study Abroad II; German Romanticism in its European Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269B **Special Topics in Study Abroad II; Writing Workshop I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269C **Special Topics in Study Abroad II; Writing Workshop II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL269R **Special Topics in Study Abroad II; Writing Rome**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL271 **Writing Poems and Stories: An Introductory Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing fiction and poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Subraj Singh TuTh 11:00am - 12:15pm	Seats (Total: 15) KEY 0102
0102	Subraj Singh TuTh 11:00am - 12:15pm *Restricted to students in Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0102
0201	Sebastian Bronson Boddie MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0125
0301	Meghan Collins TuTh 8:00am - 9:15am	Seats (Total: 20) ASY 3217
FC01	Zachary Frank TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 15) KEY 0123

ENGL272 **Writing Fiction: A Beginning Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing fiction. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Lara Payne TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0125
0201	Katherine Hansen MW 2:00pm - 3:15pm	Seats (Total: 20) KEY 0120
0301	Joseph Angelella TuTh 8:00am - 9:15am	Seats (Total: 20) KEY 0121
0401	Katherine Joshi TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0121

ENGL273 **Writing Poetry: A Beginning Workshop**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Introduction to theory and practice of writing poetry. Emphasis on critical reading of literary models. Exercises and workshop discussions with continual reference to modeling, drafting, and revising as necessary stages in a creative process.

0101	Cecilia Smith MWF 11:00am - 11:50am	Seats (Total: 20) KEY 0125
0201	Kassiah Drummond TuTh 9:30am - 10:45am	Seats (Total: 20) KEY 0102

ENGL275 **Scriptwriting for Theater, Film, and Television**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DSSP

Cross-listed with: ARHU275. Credit only granted for: ENGL275 or ARHU275.

Introduction to the theory and practice of scriptwriting with an opportunity to read, view, evaluate, write, and revise texts meant to be performed. Students will practice writing for the stage, film, and television and also examine selected scripts, performances, and film and television clips as models for their own creative work. Students will complete frequent writing exercises, participate in workshops, and learn to apply scholarship to the analysis and critique of scripts.

Cross-listed with ARHU275.

0101	Radford Skudrna TuTh 3:30pm - 4:45pm	Seats (Total: 15) KEY 0125
0102	Radford Skudrna TuTh 3:30pm - 4:45pm *Restricted to students in the Jimenez-Porter Writers' House.*	Seats (Total: 5) KEY 0125
0201	Jesse Brooks MWF 10:00am - 10:50am	Seats (Total: 20) KEY 0123

ENGL278B **Special Topics in Literature; German Romanticism in its European Context**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ENGL278N **Special Topics in Literature; The Romantic Experience in Europe**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ENGL278O **Special Topics in Literature; German Romanticism in its European Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ENGL280 **The English Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

Introduction to the structure of English and its historical development, with a focus on techniques of linguistic analysis. Major topics include the sound systems of English and its patterns of word formation and sentence structure, and the ways these have changed over time and vary around the world.

0201	Linda Coleman	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TWS 1107

ENGL282 **How Rhetoric Works: Persuasive Power and Strategies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

Examines how persuasion functions and influences our lives and perception, focusing on a variety of contexts: business, politics, media, law, and entertainment. Students learn persuasive and argumentative principles to understand what rhetoric is, how it works, and what it does, and to apply the knowledge to produce effective communication appropriate for their purpose, audience, and context. A wide range of persuasive media, genres, and forms will be studied to help students sharpen how they interpret and practice persuasion.

0101	Michael Israel	Seats (Total: 30)
	MWF 1:00pm - 1:50pm	TWS 0201

ENGL289F **Special Topics in English; Storytelling in Israeli Animation and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail

Introduces students to notable themes and approaches in English studies. Topics vary by section and semester.

Cross-listed with ISRL249B, TDPS258W, JWST219F, and CINE298E. Credit only granted for ISRL249B, TDPS258W, JWST219F, ENGL289F, or CINE298E. How short can a story be and still stand as a complete and meaningful creation? In animation, where every second consists of 25 handmade frames, the idea of short is brought to its extreme. Students will explore the structures of short stories and short animation films, with particular attention to Jewish and Israeli examples. Students will observe the basic elements that turn a short occurrence into a story and will practice live storytelling to experiment with different approaches to the narrator's role and the tension between text and image. Special emphasis will be given to the use of narration in animation films.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 1815

ENGL291 **Writing, Revising, Persuading**

Credits: 3 | Grading Method: Regular | General Education: DSHU, DSSP

Prerequisite: Must have satisfied Fundamental Studies Academic Writing requirement.

Intermediate-level, writing-intensive course for students who have successfully satisfied the Fundamental Studies Academic Writing requirement but wish to hone skills in analyzing and producing rhetorically attuned, well-styled prose. Deeper study of rhetorical theory and its application to a wide variety of arguments and situations. Additional writing practice, techniques of revision, study of effect of stylistic choices. Topics may include argumentation theory, visual rhetoric, stylistic theory, and writing theory.

0101	Marina Ellis	Seats (Total: 20)
	MW 5:00pm - 6:15pm	TWS 0201

ENGL293 **Writing in the Wireless World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU, DSSP

Recommended: ENGL101.

A hands-on exploration of writing at the intersection of technology and rhetoric. Students will learn to read, analyze, and compose the kinds of multimodal documents--documents combining text, image, and sound--that constitute communication in our digital world.

0101	Sarah Goodson	Seats (Total: 22)
	MW 2:00pm - 3:15pm	TWS 0201

ENGL296 **Reading and Writing Disability**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHU, DVUP

Locates and analyzes disability in various settings, modes, and texts. Investigates the material and cultural effects of the language, stories, and myths of disability. Explores the many definitions and frameworks of disability: as dynamic lived experiences, as a political identity, as a rich culture, as socially constructed barriers, and as an oppressed minority group. Examines how disability is portrayed, controlled, stereotyped, and celebrated across social, medical, political, cultural, and personal networks.

0101	Alan Montroso	Seats (Total: 20)
	MWF 11:00am - 11:50am	TWS 0201

ENGL297 **Introduction to Professional Writing**

Credits: 3 Grading Method: Regular General Education: DSSP

Prerequisite: ENGL101.

Introduction to the rhetorical principles and professional practices of professional writing, particularly the research, writing, communication, analytical, and technological skills needed for the Professional Writing minor. How culture and technology relate to the work of professional writing; design principles and rhetorical moves; digital tools, research skills, and writing strategies of professional writers. Develops skills needed to publish a writing portfolio that showcases students' professional writing competencies and projects your professional writer identities.

0101	Elizabeth Marshall MW 2:00pm - 3:15pm	Seats (Total: 22) TWS 0224
0201	Kathleen Orr TuTh 2:00pm - 3:15pm	Seats (Total: 22) TWS 0232

ENGL301 This is English: Fields and Methods

Credits: 3 Grading Method: Regular

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

"English" means a lot of things. Are you looking for literature, or linguistics? For writing--creative, critical, or professional? For theater, or debate? For film, or even videogames? This gateway course for the English major introduces you to all of these areas and more, as well as to our discipline's unique resources for studying and enjoying them. The English discipline includes three main interpretive fields: Literary and Cultural Studies; Language, Writing, and Rhetoric; and Media Studies. This course brings together the fundamental concepts and methods for reading, viewing, and researching practiced in these fields, launching you into English studies and and helping you to choose the major track that is right for you.

0101	Blake Wilder TuTh 11:00am - 12:15pm	Seats (Total: 20) TWS 3132
0201	Christina Walter MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 3132
0301	Robert Levine TuTh 12:30pm - 1:45pm	Seats (Total: 20) TWS 3132
0401	Scott Trudell MWF 12:00pm - 12:50pm	Seats (Total: 20) TWS 3132

ENGL302 Medieval Literature in Translation

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Surveys major works of English and continental Middle Ages. Readings may include romance, lyric and drama, Germanic epic, works of Dante, Chretien de Troyes, Jean de Meun, Christine de Pisan, Malory, English and continental mystics.

Contact department for information to register for this course.

ENGL305 Early Drama

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Explore medieval and Renaissance drama and performance, placing the Shakespearean stage in its cultural and historical contexts.

Contact department for information to register for this course.

ENGL308B Special Topics in Shakespeare; Shakespeare and Black America

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A topical exploration of William Shakespeare's plays and poems as well as their cultural contexts, performance history, and the roles they play in modern and contemporary culture

0101	Kim Coles	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0205

ENGL310 Medieval and Renaissance British Literature

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Detailed study of selected major medieval and Renaissance works written in England. Cultural attitudes and historical contexts. May include Beowulf, Anglo-Saxon lyric, drama, sonnets; works of women writers, Chaucer, Spenser, Sidney. Some readings in Middle English.

0101	Thomas Moser	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0205

ENGL311 British Literature from 1600 to 1800

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The culture of seventeenth and eighteenth-century Britain seen through detailed study of selected major texts. Drama, poetry, political writings, and early novels by men and women. Authors may include Donne, Milton, Jonson, Behn, Swift, Pope, Montagu, and Wollstonecraft.

0101	Tita Chico	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 1106

ENGL312 Romantic to Modern British Literature

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Detailed study of selected major texts from the 19th and 20th centuries. Transitions from Romanticism to Victorian age to Modernism. Historical, social, literary contexts. Issues such as rise of democracy; industrial revolution; the "woman question"; revolutions in literary form. Authors might include Wordsworth, Austen, Dickens, Arnold, T.S. Eliot, and Woolf.

0101	Orrin Wang	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0221

ENGL313 American Literature

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A detailed study of selected major texts of American literature from the 17th century to the 20th century. Issues such as race, gender, and regionalism. Authors such as Franklin, Hawthorne, Dickinson, Hemingway, and Morrison.

0101	Edlie Wong	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 0214

ENGL329B Special Topics in Film Studies; Cartoons on the Page and on the Screen

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Prerequisite: ENGL245, FILM245, CINE245, FILM283, or SLLC283; or permission of instructor. Also offered as CINE319F. Credit only granted for ENGL329B or CINE319F.

0101	Paul Cote	Seats (Total: 30)
	M 3:30pm - 6:00pm	ESJ B0322

ENGL329C Special Topics in Film Studies; Sexuality in the Cinema

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Cross-listed with CMLT398L. Credit will be granted for only one of the following: CMLT398L, CMLT498L, or ENGL329C.

0101	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL329P Special Topics in Film Studies; The Films of Martin Scorsese

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Also offered as CINE359P. Credit granted for ENGL329P or CINE359P. Prerequisite:ENGL245, FILM245, CINE245, FILM283or SLLC283; or permission of department.

0101	Marianne Conroy TuTh 12:30pm - 1:45pm	Seats (Total: 30) TWS 0221

ENGL329V **Special Topics in Film Studies; Presentations of London in Modern European Literature Film and Fine Art**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in various periods and genres of film.

Contact department for information to register for this course.

ENGL344 **Nineteenth-Century Fiction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Major British, American, and other fiction writers of the nineteenth century studied in the context of the broad global, intellectual, and artistic interests of the century.

Contact department for information to register for this course.

ENGL352 **Intermediate Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL272; or permission of ARHU-English department.

A class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and the fiction of colleagues, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

0101	Emily Mitchell M 3:30pm - 6:00pm	Seats (Total: 15) TWS 3250
0301	Maud Casey W 3:30pm - 6:00pm	Seats (Total: 15) TWS 3134

ENGL353 **Intermediate Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of A- in ENGL271 or ENGL273; or permission of ARHU-English department.

A class in the making of poetry. Intensive discussion of students' own poems. Readings in both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, memorization, and attendance at poetry readings.

0101	Elizabeth Arnold	Seats (Total: 15)
	M 3:30pm - 6:00pm	ONLINE

ENGL358D **Special Topics in U.S. Latinx Literature; Cuban Poetry & Fiction Post-1980**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topical study of selected works by U.S. Latinx writers.

Contact department for information to register for this course.

ENGL358F **Special Topics in U.S. Latinx Literature; Contemporary Latinx Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topical study of selected works by U.S. Latinx writers.

0101	Randy Ontiveros	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 1320

ENGL359A **Special Topics in LGBTQ+ Literatures and Media; American Autobiographics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected study of a topic pertinent to literary and cultural expressions of LGBTQ+ identities, positionalities, and analytics through an exploration of literature, art, and/or media.

Cross-listing with LGBT359A and WGSS348B. Credit only granted for ENGL359A, LGBT359A, or WGSS348B. Prerequisite: Two lower-level English courses,at least one in literature; or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Martha Nell Smith	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 1106

ENGL368B **Special Topics in African American, African, and African Diaspora Literatures; Blues and African American Folksong**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

0201	Barry Pearson	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	TWS 0201

ENGL368D **Special Topics in African American, African, and African Diaspora Literatures; African American Folklore and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Topical study of selected literature by African American and Black Diaspora writers from Africa, the Caribbean, North and South America, and beyond.

0201	Barry Pearson	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 0201

ENGL369A **Special Topics in Study Abroad III; The Scene of Reading**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369B **Special Topics in Study Abroad III; Representing London: The Eighteenth Century I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369C **Special Topics in Study Abroad III; The Dickens City I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369E **Special Topics in Study Abroad III; The Crisis of Culture: Literature and Politics 1918-1948**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369F **Special Topics in Study Abroad III; British Drama from the 1950s to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369G **Special Topics in Study Abroad III; Adapting Literature to Screen**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369H **Special Topics in Study Abroad III; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369K **Special Topics in Study Abroad III; Great Directors**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369L **Special Topics in Study Abroad III; Angloamerican Travelers in Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Q **Special Topics in Study Abroad III; Literature of the Shoah**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL369Z **Special Topics in Study Abroad III; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL373 **Senior Honors Project**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL370. Restriction: Must be in English Language and Literature program.

Research and writing of senior honors project. Strongly recommended for students planning graduate work.

0101	Kim Coles	Seats (Total: 20)
	M 3:30pm - 5:30pm	TWS 3252

ENGL376 **The Speculative Imagination: Science Fiction on Page and Screen**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: ENGL379Y or ENGL376. Formerly: ENGL379Y.

Examines a global cross-section of science fiction in literature, film, television, comics, and other media. Studies the unique formal qualities of science fiction and traces its history from its origin in the eighteenth century to the present. Explores how the twenty-first century has brought new prominence to science fiction by creators of color, women creators, and queer creators, as well as intersections of these. Considers how science fiction addresses a range of phenomena--from environmental destruction to surveillance to imperialism and militarism. Students learn how to analyze and write about the formal and historical dimensions of the genre.

0101	Lee Konstantinou	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0214

ENGL378D **Special Topics in English; Literature and Revolution in the Americas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Offers sustained attention to notable current themes and approaches in English studies. Topics vary by section and semester.

0101	Sharada Balachandran Orihuela	Seats (Total: 25)
	TuTh 9:30am - 10:45am	TWS 0221

ENGL379B **Special Topics in Literature; Art, Architecture and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Michael Olmert	Seats (Total: 25)
	MW 3:30pm - 4:45pm	TWS 0221

ENGL379V **Special Topics in Literature; Gypsy Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with CMLT398N. Credit will be granted for only one of the following: CMLT398N, CMLT498N, or ENGL379V.

0101	Eugene Robinson	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

ENGL381 **MGA Legislative Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSPW

Prerequisite: Students who have taken courses with comparable content may contact the department; or ENGL101. Restriction: Permission of ARHU-English department. Cross-listed with: HONR368A. Credit only granted for: HONR368A or ENGL381. Additional information: Application required. Contact english@umd.edu for more information.

Prepares students to intern for the Maryland General Assembly. Introduces standard legislative genres and assigns extended practice in researching legislative issues.

Cross-listed with HONR368A. Credit only granted for one of the following : ENGL381 or HONR368A. Admission to this course is by application only. Click here for more details.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	TWS 0232

ENGL385 **English Semantics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of meaning in language and language use. Examines how the senses of words and other linguistic constructions are mentally represented, and how they contribute to the construction of meanings in linguistic communication.

0201	Michael Israel	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	TWS 0236

ENGL388D **Writing, Research, and Media Internships; Dickinson Electronic Archives**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Field work in English studies.

Prerequisite: permission of department. Repeatable to 12 credits.

0101	Martha Nell Smith	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388P **English Careers Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular General Education: DSSP

Prerequisite: Permission of ARHU-English department. Repeatable to 12 credits if content differs. Additional information: Each enrolled credit equals 45 hours of on-site internship work.

Students receive credit for an internship of their choice that focuses at least half of its work on core English skills such as writing, editing, and research. Students secure their own internship placements. Course assignments include, for instance, an activity log, reflection papers, a supervisor evaluation, and a final portfolio of work.

Prerequisite: permission of department. Repeatable to 12 credits. Contact english@umd.edu.

0101	Karen Lewis	Seats (Total: 15)
	Contact instructor or department for details.	

ENGL388T **Writing, Research, and Media Internships; Maryland Institute for Technology in the Humanities Internships**

(Perm req)

Credits: 1-3 Grading Method: Regular

Field work in English studies.

Prerequisite: permission of department. Repeatable to 12 credits.

0101	Purdom Lindblad	Seats (Total: 5)
	Contact instructor or department for details.	

ENGL388V **Undergraduate Teaching Assistants in English**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: Permission of the ARHU-English department. Repeatable to 12 credits. Additional information: Students should consult with the UTA Coordinator to determine the number of enrollment credits.

A weekly teaching practicum and concurrent internship as an undergraduate teaching assistant in an English course. Students will explore the theories and best practices of teaching and learning in the various fields of the English discipline, particularly writing and literary studies. The emphasis is on creating inclusive classrooms and working with diverse learners and is grounded in theories of critical pedagogy. Students will apply principles of learning theory to develop and facilitate learner-centered lessons and discussions. They will also study composition pedagogy in preparation for responding to student writing in the course for which they are an assistant.

Prerequisite: permission of department. Repeatable to 12 credits. Contact Lyra Hilliard, lyrahill@umd.edu. Students taking ENGL388V for the first time should register for section 0101 or 0401 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001 or 3001 for 3 credits.

0101	Caroline Wilkins	Seats (Total: 20)
	W 3:30pm - 5:00pm	TWS 1313
0401	Lyra Hilliard	Seats (Total: 20)
	Tu 3:30pm - 5:00pm	TWS 1313

2001	Caroline Wilkins Contact instructor or department for details.	Seats (Total: 10)
3001	Lyra Hilliard Contact instructor or department for details.	Seats (Total: 10)

ENGL388W **Writing Center Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular General Education: DSSP

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: SPAN388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

Prerequisite: permission of department. Repeatable to 12 credits. To apply, go to http://www.english.umd.edu/academics/writingcenter/internship Students taking ENGL388W for the first time should register for section 0101 for 4 credits. When taking the course again in subsequent semesters, students should register for 2001.

0101	Thomas Earles M 3:30pm - 6:00pm Contact instructor or department for details. *Students registering for 0101 should register for four credits.*	Seats (Total: 20) TWS 3136
2001	Thomas Earles Contact instructor or department for details.	Seats (Total: 4)

ENGL390 **Science Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Click here for more course information.

0301	Katherine Oneill MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0223
0401	Katherine Oneill MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0223

0501	Katherine Oneill MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0223
1501	Robin Allen-Klein TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0207
1505	Robin Allen-Klein TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0223
1601	Richard Reynnells Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1801	Richard Reynnells W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
9001	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Sarah Dammeyer Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL390H **Science Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits; and junior standing or higher. Credit only granted for: ENGL390 or ENGL393S. Formerly: ENGL393S.

Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students also learn to accommodate scientific information to general audiences.

Restricted to students in the Honors College or departmental Honors programs.

0101	Marybeth Shea MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0224
0201	Marybeth Shea MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0224
0301	Marybeth Shea MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0224

ENGL391 **Advanced Composition**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Click here for more course information.

0401	Mark Forrester MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1105
0501	Mark Forrester MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 1321
0601	Peter Witte MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 3250
0701	Peter Witte MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 1105
0801	Robert Lucci MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1321
0901	Aysha Jawed MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 0223
1101	Peter Grybauskas TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0201
1201	John Kim TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 1105
1301	Peter Grybauskas TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 1105
1701	Robert Crane Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 1105
1901	Mark Fitzgerald Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

6101	Catherine Bayly MF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 19) SPH 0302 ONLINE
6102	Catherine Bayly MF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 19) SPH 0302 ONLINE
6103	Christopher Crane Tu 8:00am - 9:15am Class time/details on ELMs	Seats (Total: 19) TWS 1106 ONLINE
9001	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Mark Fitzgerald Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Kate Wilson Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL391H **Advanced Composition**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

Restricted to students in the Honors College or departmental Honors programs.

Click here for more course information.

0201	Mark Forrester MWF 10:00am - 10:50am	Seats (Total: 19) TWS 1105

ENGL392 Legal Writing

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Conventions of legal writing and research. Students learn how to read and write about cases, statutes, or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters.

Click here for more course information.

1101	John Kim TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 2120
1301	John Kim TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 1120
1401	Kelly Hebron TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3252
1601	Michael Winett M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1701	Sara Faradji Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232
1801	Michael Winett W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0232

ENGL393 Technical Writing

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Click here for more course information.

0001	Patrick Nelson MWF 8:00am - 8:50am	Seats (Total: 19) TWS 0221
0301	Jesse Brooks MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0232
0303	Joan Mooney MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0221
0401	Joan Mooney MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0224
0501	Shannon Zellars Strohl MWF 1:00pm - 1:50pm	Seats (Total: 19) ONLINE
0701	Konstantinos Pozoukidis MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
0801	Roberto Leon MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234
1001	Kathleen Orr TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0207
1101	Elizabeth McClure TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1162
1102	Alexandra Calloway TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0214
1201	Alexandra Calloway TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0223
1202	Elizabeth McClure TuTh 11:00am - 12:15pm	Seats (Total: 19) PLS 1164
1402	Alexandra Calloway TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0207
1501	Sarah Dammeyer TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0223

1505	Sarah Dammeyer TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0224
1602	Kelly Cresap M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0234
1603	Jesse Brooks M 6:30pm - 9:10pm	Seats (Total: 19) TWS 3134
1702	Aysha Jawed Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0230
1801	Kelly Cresap W 6:30pm - 9:10pm	Seats (Total: 19) TWS 1107
1902	Patrick Nelson Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207
9001	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9002	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9003	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9004	Ann Mason Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Daniel Saalfeld Class time/details on ELMs	Seats (Total: 19) ONLINE

9009	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9010	Phillip Moses Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Michelle Von Euw Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9017	Dennis Winston Class time/details on ELMs	Seats (Total: 19) ONLINE
9018	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9019	Sajeela Yaqub Class time/details on ELMs	Seats (Total: 19) ONLINE
9020	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE
9021	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9022	Danuta Hinc Class time/details on ELMs	Seats (Total: 19) ONLINE

9023	Jessica Enoch Class time/details on ELMs	Seats (Total: 19) ONLINE
9024	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9025	Andrew Delfino Class time/details on ELMs	Seats (Total: 19) ONLINE
9026	Elizabeth McClure Class time/details on ELMs	Seats (Total: 19) ONLINE
9027	Joshua Buursma Class time/details on ELMs	Seats (Total: 19) ONLINE
9028	David Miles Class time/details on ELMs	Seats (Total: 19) ONLINE

ENGL393H **Technical Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Restricted to students in the Honors College or departmental Honors programs.

Click here for more course information.

6101	Christopher Crane Tu 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 19) TWS 0234 ONLINE

ENGL393Q **Technical Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

3001	Alexandra Calloway F 9:00am - 11:40am	Seats (Total: 19) TWS 3132
	The writing of technical papers and reports with additional service learning hours required to be completed as part of the course.	

ENGL393X **Technical Writing**

(Perm req)

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focuses on the writing of technical papers and reports.

Limited to students for whom English is a second language and who have a score below any of the following: SAT Verbal 400, TOEFL 575, CELT 250. Students who have received an "A" in ENGL 101 or its equivalent cannot register for ENGL 393X.

Click here for more course information.

1501	Sonney Wolfe TuTh 3:30pm - 4:45pm	Seats (Total: 15) TWS 0214

ENGL394 **Business Writing**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Intensive practice in the forms of written communication common in the business world: letters, memos, short reports, and proposals. Focus on the principles of rhetoric and effective style.

Click here for more course information.

0101	Jay Wilcox MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0207
0102	Esthus Amos MWF 9:00am - 9:50am	Seats (Total: 19) TWS 0223
0201	Erica Cochran MWF 10:00am - 10:50am	Seats (Total: 19) TWS 0223
0301	Esthus Amos MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0230

0302	Erica Cochran MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0207
0401	Erica Cochran MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 3136
0402	Esthus Amos MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 0205
0404	Anjula Batra MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0207
0501	Jay Wilcox MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 3252
0601	Anna Szczepaniec-Bialas MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0232
0701	Anna Szczepaniec-Bialas MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 1321
0801	Anna Szczepaniec-Bialas MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0236
0802	Simone Daleo MW 5:00pm - 6:15pm	Seats (Total: 19) ASY 3221
0901	Simone Daleo MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 1105
1101	Clare Parsons TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1321
1201	Adam Lloyd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0207
1301	Adam Lloyd TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0234
1303	Thomas Lowderbaugh TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0232

1401	Joseph Angelella TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0234
1501	Blake Wilder TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
1505	Garth Libhart TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105
1506	Robert Harris TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 1107
1508	Simone Daleo TuTh 6:30pm - 7:45pm	Seats (Total: 19) TWS 1106
1601	Robert Harris M 6:30pm - 9:10pm	Seats (Total: 19) TWS 0221
1701	Jonathan Rick Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0223
1902	Robert Harris Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 1107
9004	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9005	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9006	Pamela Orel Class time/details on ELMs	Seats (Total: 19) ONLINE
9007	Daune O'Brien Class time/details on ELMs	Seats (Total: 19) ONLINE
9008	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9009	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE

9010	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9011	Karen Angeline Class time/details on ELMs	Seats (Total: 19) ONLINE
9012	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9013	Radford Skudrna Class time/details on ELMs	Seats (Total: 19) ONLINE
9014	Joseph Angelella Class time/details on ELMs	Seats (Total: 19) ONLINE
9015	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
9016	Clare Parsons Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	Carol Cron MWF 11:00am - 11:50am *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 19) BLD2 1032
ESG2	David Miles Class time/details on ELMs *Restricted to COMM majors at Shady Grove.*	Seats (Total: 19) ONLINE
ESG3	David Miles Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 19) ONLINE
ESG4	Joseph Wappel TuTh 9:30am - 10:45am *Restricted to COMM majors at Shady Grove.*	Seats (Total: 19) BLD2 3012

SG91	Joseph Wappel TuTh 11:00am - 12:15pm	Seats (Total: 19) BLD2 3022
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG92	Holly Smith TuTh 11:00am - 12:15pm	Seats (Total: 19) BLD2 2062
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	
SG93	Holly Smith TuTh 12:30pm - 1:45pm	Seats (Total: 19) BLD2 2062
	Restricted to BMGT-Shady Grove Juniors. Other students may request enrollment on a space available basis. UMCP undergraduate BMGT students are not eligible to enroll at Shady Grove.	

ENGL395 **Writing for Health Professions**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Focus on accommodating health-related technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

Click here for more course information.

0101	James Goodwin MWF 9:00am - 9:50am	Seats (Total: 19) ONLINE
0201	James Goodwin MWF 10:00am - 10:50am	Seats (Total: 19) ONLINE
0301	Jay Wilcox MWF 11:00am - 11:50am	Seats (Total: 19) TWS 0234
0401	Jay Wilcox MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 0234
0501	Michael Schmidt MWF 1:00pm - 1:50pm	Seats (Total: 19) TWS 0224

0601	Kisa Lape MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 0223
0602	Michael Schmidt MWF 2:00pm - 2:50pm	Seats (Total: 19) TWS 1105
0801	Elizabeth Marshall MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1105
0901	Elizabeth Marshall MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 0201
1001	Michelle Moncrieffe TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 1105
1101	Joseph Angelella TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1105
1201	Justin Lohr TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0234
1301	Justin Lohr TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0214
1402	Justin Lohr TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 3132
1501	Eric Bond TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0230
1502	Justin Lohr TuTh 3:30pm - 4:45pm	Seats (Total: 19) KNI 1105
1506	Eric Bond TuTh 5:00pm - 6:15pm	Seats (Total: 19) TWS 0234
1701	Eric Bond Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0214
9001	Kisa Lape Class time/details on ELMs	Seats (Total: 19) ONLINE

9002	Kisa Lape Class time/details on ELMs	Seats (Total: 19) ONLINE
ESG1	Katherine Oneill MWF 9:00am - 9:50am *Registration is restricted to Biological Sciences - Shady Grove majors.*	Seats (Total: 19) ONLINE

ENGL398A **Writing for the Arts**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines the situations and genres in which working professionals (practitioners, advocates, administrators, and educators) write about art, culture, and artists. The course covers the complex process that writers need to learn, including how to accommodate information to specific audiences, how to use stylistic and visual devices to make information more accessible, and how to edit their own work as well as that of their peers. Assignments parallel the writing demands that students will face in the workplace, including analyzing and composing artist statements, an arts manifesto, art education guides, press releases about artists and their work, critical reviews of exhibits and performances, and proposals to funding agencies and foundations.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL391A. Credit will be granted for only one of the following: ENGL398A or ENGL391A. Formerly ENGL391A. An advanced composition course which emphasizes writing about the arts.

Click here for more course information.

1001	Caroline Wilkins TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0234
1101	Thomas Earles TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0207
1601	Sarah Goodson M 6:30pm - 9:10pm	Seats (Total: 19) TWS 3132
1701	Mark Fitzgerald Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0224
1801	Sara Faradji W 6:30pm - 9:10pm	Seats (Total: 19) TWS 0221

ENGL398B **Writing for Social Entrepreneurship**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students who want to develop the skills needed to start a successful social venture--a start-up business with a social mission or a new nonprofit program. The course centers on a major writing project such as a business plan, a website design plan, a fundraising proposal, or a concept paper for a new nonprofit organization. Students produce other communication projects that social entrepreneurs use to develop their businesses and nonprofits, such as presentations or pitches to prospective investors/donors, marketing materials, and a job announcement. Students will learn from local social entrepreneurs who share their experiences of using writing to succeed in the field.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

0601	Eric Thiel MW 2:00pm - 3:15pm	Seats (Total: 19) TWS 3252
0701	Eric Thiel MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0234
0801	Eric Thiel MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0207
1601	Mrim Boutla M 6:30pm - 9:10pm	Seats (Total: 19) TWS 1107
1701	Mrim Boutla Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201
1901	Roxanne Clements Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0201

ENGL398C Writing Case Studies and Investigative Reports

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for students interested in becoming police investigators, educators, case workers, insurance adjusters, nurses, or program evaluators, or in entering branches of the social sciences that investigate cases and value reports based on accurate descriptions and compelling narratives. Such reports must be factual and yet useful to decision makers, unbiased and yet focused. Students study genres and language skills from careful summarizing to convincing storytelling.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. An advanced composition course which emphasizes writing cases and investigative reports.

Click here for more course information.

0701	Sarah Goodson MW 3:30pm - 4:45pm	Seats (Total: 19) TWS 0223
0801	Khadijah Ali-Coleman MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 0223
1101	Kathleen Orr TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 3252
1301	Kathleen Orr TuTh 12:30pm - 1:45pm	Seats (Total: 19) ARC 1125
1507	Khadijah Ali-Coleman MW 6:30pm - 7:45pm	Seats (Total: 19) TWS 0207
ESG1	Joshua Buursma Class time/details on ELMs *Registration is restricted to CCJS-Shady Grove students.*	Seats (Total: 19) ONLINE
ESG2	Joseph Wappel TuTh 12:30pm - 1:45pm *Registration is restricted to CCJS-Shady Grove students.*	Seats (Total: 19) BLD2 3012

ENGL398L **Scholarly Writing in the Humanities**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines scholarship in the humanities as a genre of professional writing and investigates the norms and procedures of advanced academic writing. Assignments parallel the writing demands that students will face in the academic workplace, including a graduate school application essay, a genre review, an annotated bibliography, a journal article, and an oral presentation of article subject matter.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. An advanced composition class focusing on the norms and procedures of advanced academic writing.

Click here for more course information.

0301	Mark Forrester MWF 11:00am - 11:50am	Seats (Total: 19) TWS 1105

ENGL398N **Writing for Non-Profit Organizations**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Examines professional writing and communication work in the non-profit sector. Students will analyze the audiences and document genres that they may encounter in real-world non-profit work and will learn how to compose many of these documents, from press releases and other public relations material to position papers, reports, and grant proposals. Students may also have the opportunity to add a service-learning component to the course by working with and for an area non-profit.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL394N. Credit will be granted for only one of the following ENGL398N or ENGL394N. Formerly ENGL394N. A busniness writing class focusinog on writing about nonprofits.

Click here for more course information.

0301	Michael Schmidt MWF 11:00am - 11:50am	Seats (Total: 19) TWS 3252
0401	Michael Schmidt MWF 12:00pm - 12:50pm	Seats (Total: 19) TWS 1321
0801	Sarah Goodson MW 5:00pm - 6:15pm	Seats (Total: 19) TWS 1106
1001	David Todd TuTh 8:00am - 9:15am	Seats (Total: 19) TWS 0232
1101	David Todd TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0232
1102	Gerard Holmes TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0230
1201	David Todd TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0232

1301	Rebecca Holden TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0230
1401	Rebecca Holden TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0230

ENGL398R **Writing Non-Fictional Narratives**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Approaches nonfiction narrative-a kind of writing influenced by fiction, magazine journalism, memoir, and personal essay--as a form of professional writing used in publishing and a range of careers involving proposal writing, work documentation, lobbying, social marketing, and political commentary, among others. Students learn to use many of the same tools as fiction writers, such as dialogue, vivid description, developing characters, nonlinear structure, and shifts in tense, time, and points of view. They also learn how to edit their own work as well as that of their peers, doing multiple revisions of the major assignments for a final portfolio. Major assignments include essays targeted to specific publications, query letters, audience analysis, and a publisher analysis.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement.

1001	Lyra Hilliard Tu 8:00am - 9:15am Th 8:00am - 9:15am	Seats (Total: 19) TWS 0205 ONLINE
1101	Pamela Gerhardt TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0224
1102	Danuta Hinc TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 0223
1201	Pamela Gerhardt TuTh 11:00am - 12:15pm	Seats (Total: 19) TWS 0224
1301	Pamela Gerhardt TuTh 12:30pm - 1:45pm	Seats (Total: 19) TWS 0224
1401	Danuta Hinc TuTh 2:00pm - 3:15pm	Seats (Total: 19) TWS 0223

1501	Pamela Gerhardt TuTh 3:30pm - 4:45pm	Seats (Total: 19) TWS 0224

ENGL398V **Writing About the Environment**

Credits: 3 Grading Method: Regular General Education: FSPW

Prerequisite: Must have fulfilled the Academic Writing (FSAW) requirement. Restriction: Must have earned a minimum of 60 credits.

Designed for those aspiring to work in a variety of fields that influence and are influenced by environmental science, including public policy, advocacy, science, and industry. Students learn to apply principles of technical writing to a range of scenarios and issues particular to the intersection of scientific knowledge and environmental policy. Writing audiences range from the public to decision-makers. The course emphasizes writing both within and across disciplines to enlist research for practical contexts.

Prerequisite: 60 credits and completion of ENGL101 or equivalent. This course satisfies the professional writing requirement. Not open to students who have completed ENGL393E. Credit will be granted for only one of the following ENGL398V or ENGL393E. Formerly ENGL393E.

Click here for more course information.

1201	Heidi Scott TuTh 9:30am - 10:45am	Seats (Total: 19) TWS 1106
1301	Anna Josephson TuTh 12:30pm - 1:45pm	Seats (Total: 19) JMZ 1117
1501	Anna Josephson TuTh 3:30pm - 4:45pm	Seats (Total: 19) KEY 0102
1502	Ruth Phillips TuTh 3:30pm - 4:45pm	Seats (Total: 19) ASY 3211
1701	Ruth Phillips Tu 6:30pm - 9:10pm	Seats (Total: 19) TWS 0207
1702	Anna Josephson Th 6:30pm - 9:10pm	Seats (Total: 19) TWS 0214

ENGL402 **Chaucer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Works read in Middle English. Readings may include Canterbury Tales, Troilus and Criseyde, dream visions, lyrics.

Contact department for information to register for this course.

ENGL409A **Study Abroad Special Topics IV; Solitude in Life and Letters in Enlightenment Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409B **Study Abroad Special Topics IV; Shakespeare: The Play and the Book**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409C **Study Abroad Special Topics IV; Shakespeare's Italian Plays**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409D **Study Abroad Special Topics IV; Time, Narrative and Culture (Sem A)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409E **Study Abroad Special Topics IV; The Revolution Controversy: Politics and Genre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409F **Study Abroad Special Topics IV; Grand Tours: Nineteenth Century Adventure Stories for Young Readers and their Twentieth Century Afterlives**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409G **Study Abroad Special Topics IV; Thomas Hardy and the Victorian Modern**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409H Study Abroad Special Topics IV; The Caribbean Novel

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409I Study Abroad Special Topics IV; The New York Century: Urban Literary Culture 1900-1999

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409L Study Abroad Special Topics IV; Literature of London

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL409P Study Abroad Special Topics IV; Phonies, Fakes, Liars and Conmen: Readings in Fact and Fiction

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ENGL414 Milton

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Poetry and major prose in their social, political, and literary-historical contexts. Special attention to Paradise Lost. Other works may include Samson Agonistes and shorter poems.

Contact department for information to register for this course.

ENGL420 English Romantic Literature

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

British poetry, drama, fiction, and criticism c.1790 to c.1830, a period of dramatic social change and revolution in literature, philosophy, the arts, industry, and politics. Authors include Austen, Wordsworth, Coleridge, Keats, Byron, Percy, and Mary Shelley.

Contact department for information to register for this course.

ENGL422A **English Victorian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

A survey of English literature of the Victorian period. Writers may include Arnold, Browning, Tennyson, Dickens, George Eliot, Carlyle, Ruskin, Newman, and Wilde.

Contact department for information to register for this course.

ENGL428Q **Seminar in Language and Literature; The Refugee: Fictions of Asylum/Asylum Fictions**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

Restriction: Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Course intended primarily for students in English Honors Program. English majors with strong ac ademic records may also apply. Permission from the Director of Honors required.

0101	Sangeeta Ray	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 3134

ENGL429 **Independent Research in English**

(Perm req)

Credits: 1-6 Grading Method: Regular

An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

Prerequisite: ENGL301 and two English courses, excluding Fundamental Studies requirement.

Contact department for information to register for this course.

ENGL438A **Selected Topics in Media Studies; Justice, Revenge, and the Literary Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a topic pertinent to how the material production, technologies, and cultural practices of diverse types of media shape meaning.

0101	Chad Infante	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0205

ENGL438B **Selected Topics in Media Studies; Black Digitalities**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a topic pertinent to how the material production, technologies, and cultural practices of diverse types of media shape meaning.

Cross-listed with AASP478E. Credit only granted for ENGL438B or AASP478E.

0101	Marisa Parham	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0221

ENGL439D **Spotlight on Major Writers; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with LGBT448Y and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 0236

ENGL439K **Spotlight on Major Writers; Two Madmen: William Cowper (d. 1800) & John Ruskin (d. 1900)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

0101	Michael Olmert	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0221

ENGL439M **Spotlight on Major Writers; Major American Writers After 1865**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a single writer, or a handful of writers, to understand the shifts in the writer's craft and cultural influence, both past and present.

Contact department for information to register for this course.

ENGL444 **Feminist Critical Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: WMST200, WGSS200, WMST250, WGSS250, or ENGL250. Cross-listed with: WGSS444. Credit only granted for: ENGL444, WMST444 or WGSS444. Formerly: WMST444.

Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.

Contact department for information to register for this course.

ENGL453 Literary Theory

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses (excluding Fundamental Studies requirement); or permission of ARHU-English Department.

Examines our assumptions about literature, language, media, and culture by exploring how people have theorized key concepts and relations like language, materiality, meaning, representation, identity, and power. We will focus both on learning the history, arguments, and vocabularies of these theories and on evaluating their usefulness for helping us to understand the many kinds of texts (visual, aural, etc.) we study in English. Theoretical thinking will aid us in analyzing the forms texts take; the ideas texts record, challenge, or reinvent; and how texts make us think or feel about ourselves, others, and the world in which we live.

0101	Christina Walter	Seats (Total: 15)
	MW 5:00pm - 6:15pm	TWS 1107

ENGL457 The Modern Novel

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Modernism in the novel of the twentieth century. Such writers as Joyce, Lawrence, Murdoch, James, Forster, Faulkner, Hemingway, Fitzgerald, Ellison, Welty, Nabokov and Malamud.

Contact department for information to register for this course.

ENGL458A Literature by Women After 1800; Gender, Race and Empire in Women's Writing 1780-1900

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected writings by women after 1800.

Contact department for information to register for this course.

ENGL466 Arthurian Legend

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

Development of Arthurian legend in English and continental literature from Middle Ages to twentieth century. All readings in modern English.

0101	Thomas Moser	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 0205

ENGL468A **Selected Topics in Film Studies; The Scene of Writing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced studies in various periods and genres of film.

Contact department for information to register for this course.

ENGL469K **The Craft of Literature: Creative Form and Theory; Poetic Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines various forms of poetry and/or fiction, emphasizing the practice of making literary art and the aesthetic and theoretical approaches that define it. Students will practice the elements of literary craft, producing and experimenting with a wide range of forms and conventions in poetry and/or fiction. They will also produce critical work that articulates and contextualizes theoretical approaches to the making of literary art.

Prerequisite: Two English courses in literature or creative writing; and have completed a 200-level creative writing workshop in ENGL or permission of ARHU-English Department. Repeatable to 9 credits if content differs.

0101	Nicole Cuffy	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TWS 0205

ENGL475 **Postmodern Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Two English courses in literature; or permission of ARHU-English department.

The origins and ongoing development of postmodern literature. Aspects of the "postmodern condition," such as the collapse of identity, the erasure of cultural and aesthetic boundaries, and the dissolution of life into textuality. The novel and other genres and media.

Contact department for information to register for this course.

ENGL478C **Selected Topics in Literature before 1800; Good Grades: The Literature of Meritocracy and its Discontents**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU- English department.

0101	Gerard Passannante MW 3:30pm - 4:45pm	Seats (Total: 20) TWS 1107

ENGL478O **Selected Topics in Literature before 1800; Body of Frankenstein**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from earlier historical periods.

Prerequisite: two English courses in literature or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Orrin Wang TuTh 5:00pm - 6:15pm	Seats (Total: 20) TWS 0201

ENGL479C **Selected Topics in Literature after 1800; Literary Spinoffs: Rewriting and Reprising the Classics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Edlie Wong MW 5:00pm - 6:15pm	Seats (Total: 15) TWS 0214

ENGL479D **Selected Topics in Literature after 1800; The Art of (Hip-Hop) Storytelling**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of key topics in literary works from later historical periods.

Prerequisite: Two English courses in literature; or permission of ARHU- English department. Repeatable to 9 credits if content differs.

0101	Rion Scott MW 5:00pm - 6:15pm	Seats (Total: 20) TWS 0221

ENGL487 **Principles and Practices of Rhetoric**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A seminar examining foundational concepts and approaches in the theory and practice of rhetoric in civic, professional, academic, and interpersonal settings; focusing on key issues in persuasion, argumentation, and eloquence in historical and contemporary contexts.

0101	Sara Wilder	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 1107

ENGL489B **Special Topics in Language and Rhetoric; Disability Rhetorics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in language and rhetoric, such as discourse analysis, semantics, or cognitive linguistics; comparative rhetoric and rhetorical theory, digital rhetorics, women's and minority rhetorics, or the history of rhetoric.

0101	Melanie Kill	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 3136

ENGL489P **Special Topics in Language and Rhetoric; The Language of Political Persuasion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in language and rhetoric, such as discourse analysis, semantics, or cognitive linguistics; comparative rhetoric and rhetorical theory, digital rhetorics, women's and minority rhetorics, or the history of rhetoric.

0101	Linda Coleman	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	TWS 1106

ENGL491 **Digital Rhetoric**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Students must have satisfied the Fundamental Studies Academic Writing requirement. Credit only granted for: ENGL489J, or ENGL491. Formerly: ENGL489J.

Examines the social significance of the ways digital texts are composed and circulated. Explores why it matters how the web is written and who does the writing, understanding the Internet as rhetorical from its content and communities to the code, protocols, and policies that control digital distribution. Includes active experimentation with digital tools so students can expand their theoretical understanding through critical making.

0101	Cecilia Shelton	Seats (Total: 20)
	MW 2:00pm - 3:15pm	TWS 0234

ENGL492 **Graphic Design and Rhetoric**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Students must have satisfied Fundamental Studies Academic Writing requirement.

An exploration of the visual dimensions of texts and the skills involved in designing them well. Considers graphic design theory and history from a rhetorical perspective, working to understand and practice the use of symbol systems to express, inform, and advocate. Includes direct experimentation with the principles and techniques of graphic design.

Students are encouraged to bring laptops to class meetings.

0201	Melanie Kill	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TWS 3136

ENGL494 **Editing and Document Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL393 or ENGL391; or students who have taken courses with comparable content may contact the department.

Principles of general editing for clarity, precision and correctness. Applications of the conventions of grammar, spelling, punctuation and usage, and organization for logic and accuracy. Working knowledge of the professional vocabulary of editing applied throughout the course.

0201	Cecilia Shelton	Seats (Total: 20)
	MW 3:30pm - 4:45pm	TWS 0236

ENGL495 **Independent Study in Honors**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENGL373 and ENGL370. Restriction: Must be in English Language and Literature program; and candidacy for honors in English.

Completion and presentation of the senior honors project.

Contact department for information to register for this course.

ENGL497 **English at Work**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: ENGL301; and an ENGL course at the 300-level or higher. Restriction: Must have earned a minimum of 60 credits.

Examines how English majors put their academic knowledge and skills to work in professional workplaces after graduation. Students learn strategies to research careers, and they shadow a person in a career of interest for a day. Students learn to compose different professional genres to write and speak about and for professional development and advancement, including inquiry letters, technical descriptions, professional portfolios, and elevator pitches. Students will critically examine the learning they have done in their undergraduate coursework and compose a vision for bringing that learning to life in their future work.

Restriction: Must be in English Language and Literature program; or must be in Secondary Educ: English Language Arts program.

0101	Scott Wible MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 0214

ENGL498 **Advanced Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An advanced class in the making of fiction. Intensive discussion of students' own fiction. Readings include both fiction and essays about fiction by practicing writers. Writing short critical papers, responding to works of fiction, and to colleagues' fiction, in-class writing exercises, intensive reading, and thinking about literature, in equal parts, and attendance at readings.

Prerequisite: ENGL352 or ENGL396; or permission of department.

0101	Emily Mitchell W 3:30pm - 6:00pm	Seats (Total: 15) TWS 3132
0201	Gabrielle Fuentes Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3136
0301	Maud Casey Tu 3:30pm - 6:00pm	Seats (Total: 15) TWS 3250

ENGL499 **Advanced Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

An advanced class in the making of poetry. Intensive discussion of students' own poems. Readings include both poetry and essays about poetry by practicing poets. Writing short critical prose pieces, responding critically to colleagues' poems, in-class and outside writing exercises, and attendance at poetry readings.

Prerequisite: ENGL397 or ENGL353; or permission of department.

0101	Amanda Stallings Th 3:30pm - 6:00pm	Seats (Total: 15) TWS 3250

ENGL601 **Introduction to Graduate Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An introduction to different elements of graduate work and an exploration of what it means to get a doctoral degree in English. Considers different career trajectories, in and outside of academia, as well as the future of higher education.

0101	Lee Konstantinou Tu 3:30pm - 6:00pm	Seats (Total: 14) TWS 3136

ENGL659L **Readings in Postcolonial Literatures and Theory; The Refugee: Fictions of Asylum/Asylum Fictions**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Readings in post-colonial, diasporic, and trans-national theory and literature.

Repeatable to 9 credits if content differs. Cross-listed with CMLT679L. Credit granted for ENGL659L or CMLT679L.

0101	Sangeeta Ray Th 3:30pm - 6:00pm	Seats (Total: 14) TWS 3132

ENGL679 **Professional and Career Mentoring for Master's Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for MA and MFA students from a faculty member.

Contact department for information to register for this course.

ENGL688 **Poetry Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Poetry workshop.

0201	Joshua Weiner W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3252

ENGL689 **Fiction Workshop**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Fiction workshop.

0101	Gabrielle Fuentes W 3:30pm - 6:00pm	Seats (Total: 12) TWS 3250

ENGL699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ENGL719D **Seminar in Renaissance Literature; Gender, Sexuality, and the Shape of History**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	David Simon Tu 6:30pm - 9:00pm	Seats (Total: 11) TWS 3134

ENGL748B **Seminar in American Literature; Developments in the 19th-Century American Novel**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Robert Levine Th 6:30pm - 9:00pm	Seats (Total: 11) TWS 3134

ENGL759A **Seminar in Literature and the Other Arts; Race, Sex, & Medical Humanities**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	GerShun Avilez W 6:30pm - 9:00pm	Seats (Total: 11) TWS 3132

ENGL775 **Seminar in Composition Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Readings and research in recent theories of effective writing.

0101	Sara Wilder Th 3:30pm - 6:00pm	Seats (Total: 11) TWS 3252

ENGL788 **Studies in Poetic Form**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

0101	Elizabeth Arnold M 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 11) ONLINE ONLINE

ENGL798B **Critical Theory Colloquium**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

An intensive advanced exploration of current problems and issues in critical theory.

0101	John Drabinski Contact instructor or department for details.	Seats (Total: 20)

ENGL799 **Master's Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENGL809 Academic Publishing Workshop

(Perm req) Credits: 1-2 Grading Method: Sat-Fail

A workshop for the preparation of articles of other critical writing for publication in academic journals or other professional venues.

0101	Jason Rudy	Seats (Total: 12)
	Contact instructor or department for details.	

ENGL878 Pedagogical Mentoring for Doctoral Students

(Perm req) Credits: 1-3 Grading Method: Sat-Fail

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL879 Professional Mentoring for Doctoral Students

(Perm req) Credits: 1-3 Grading Method: Sat-Fail

Augments advising currently provided by the English Department Graduate Studies Office. Individual professional and career mentoring for PhD students from a faculty member.

Contact department for information to register for this course.

ENGL888 Practicum in English Studies

Credits: 1 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENGL898 Pre-Candidacy Research

(Perm req) Credits: 1-8 Grading Method: Regular

Pedagogical mentoring by roster faculty members for graduate students teaching 200-level literature courses.

Contact department for information to register for this course.

ENGL899 Doctoral Dissertation Research

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA Engineering, Materials Fall 2022

ENMA150 Materials of Civilization

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

The discovery of new materials has shaped history and built civilizations. The utilization, properties and production techniques of materials from the Bronze Age up through modern times and into the future will be traced. These materials are explained by considering their atomic structure, the binding forces between atoms and their arrangement, and how controlling the structure controls the materials properties.

0101	Robert Briber TuTh 3:30pm - 4:45pm W 2:00pm - 2:50pm	Seats (Total: 23) ANS 0412 CHE 2136	 Discussion
0102	Robert Briber TuTh 3:30pm - 4:45pm Th 11:00am - 11:50am	Seats (Total: 22) ANS 0412 CHE 2136	 Discussion

ENMA180 **Materials Science and Engineering: The Field and the Future**

Credits: 1 Grading Method: Regular

Restriction: Must be in a major in ENGR-A. James Clark School of Engineering.

Overview of the profession and the components of the Materials Science and Engineering program. Students will become familiar with the departmental faculty, areas of specialization within MSE, professional society student chapter, research opportunities and other resources available to students.

0101	Isabel Lloyd, Naomi Parker W 3:00pm - 3:50pm	Seats (Total: 30) CHE 2118

ENMA300 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Materials Science & Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENME382. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm TuTh 5:00pm - 6:15pm	Seats (Total: 30) CHE 2110
0201	Timothy Koeth TuTh 9:30am - 10:45am *For students majoring in Materials Science and Engineering.*	Seats (Total: 40) CHE 2136

0301	Francis McCluskey MWF 10:00am - 10:50am	Seats (Total: 30) CHE 2110	

ENMA312 **Experimental Methods in Materials Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Corequisite: ENMA460. Restriction: Junior standing or higher.

Introduction to experimental methods in materials characterization; synthesis of colloidal nanoparticles; X-ray diffraction and light scattering; optical microscopy; thermal conductivity and expansion; electrical measurements; heat capacity; computational materials design.

0101	Audaldo Ponce Tu 2:00pm - 3:15pm M 9:00am - 11:50am	Seats (Total: 10) KEB 1135 KEB 1135	 Lab
0102	Audaldo Ponce Tu 2:00pm - 3:15pm W 9:00am - 11:50am	Seats (Total: 10) KEB 1135 KEB 1135	 Lab

ENMA362 **Mechanical Properties**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300. Restriction: Junior standing or higher; and permission of ENGR-Materials Science & Engineering department.

Overview of Mechanical Behavior, Elastic Behavior, Dislocations, Plastic Deformation, Strengthening of Crystalline Materials, Composite Materials, High Temperature Deformation of Crystalline Materials, Permanent Deformation of Noncrystalline Materials, Tensile Fracture at Low Temperatures, Engineering Aspects of Fracture, High Temperature Fracture, Fatigue, and Experimental determination of Mechanical Properties including Hardness of Metals and Strength of Metals, Polymers, Ceramics and Composites.

For ENMA majors only.

0101	Sreeramamurthy Ankem MWF 12:00pm - 12:50pm Tu 9:00am - 11:00am	Seats (Total: 22) CSI 3117 KEB 1135	 Lab
0102	Sreeramamurthy Ankem MWF 12:00pm - 12:50pm Th 9:00am - 11:00am	Seats (Total: 22) CSI 3117 KEB 1135	 Lab

ENMA400 **Introduction to Atomistic Modeling in Materials**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300, MATH206, and ENMA460. Recommended: Basic knowledge in quantum mechanics (preferred but not required); basic knowledge in statistical mechanics (preferred but not required). Also offered as: ENMA600. Credit only granted for: ENMA489A, ENMA400, ENMA698A, or ENMA600. Formerly: ENMA489A.

This is an introductory course designed to study atomistic modeling and simulation techniques used in materials research. This course covers the theories, methods, and applications of atomistic-scale modeling techniques in simulating, understanding, and predicting the properties of materials. Specific topics include: molecular statics using empirical force fields; quantum mechanical methods including density functional theory; molecular dynamics simulations; and Monte Carlo and kinetic Monte Carlo modeling.

0101	Yifei Mo TuTh 9:30am - 10:45am	Seats (Total: 20) EGR 0312

ENMA422 **Radiation Effects of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300; and permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA422 or ENMA489E. Formerly: ENMA489E.

Ionizing radiation, radiation dosimetry and sensors, radiation processing, radiation effects on: polymers, metals, semiconductors, liquids, and gases. Radiation in advanced manufacturing, radiation-physical technology.

0101	Mohamad Al-Sheikhly MW 3:30pm - 4:45pm	Seats (Total: 30) ATL 1114

ENMA437 **Machine Learning for Materials Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH206, ENMA300, and MATH461. Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA637. Credit only granted for: ENMA489L, ENMA437 or ENMA637. Formerly: ENMA489L.

Familiarizes students with basic as well as state of the art knowledge of machine learning and its applications to materials science and engineering. Covers the range of machine learning topics with applications including feature identification and extraction, determining predictive descriptors, uncertainty analysis, and identifying the most informative experiment to perform next. One focus of the class is to build the skills necessary for developing an autonomous materials research system, where machine learning controls experiment design, execution, and analysis in a closed-loop.

0101	Ichiro Takeuchi, Aaron Kusne	Seats (Total: 10)
	M 10:00am - 12:50pm Class time/details on ELMs	JMP 2116 ONLINE

ENMA441 **Characterization of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA300 and MATH206. Restriction: Permission of ENGR-Materials Science & Engineering department; and senior standing. Credit only granted for: ENMA489T or ENMA441. Formerly: ENMA489T.

Techniques to characterize the properties of materials whose characteristic dimensions range from nanometers to macroscopic. These include conventional crystalline and noncrystalline materials, with a special attention to materials of current technological interest. The course will include recent results from the scientific literature.

0101	John Cumings	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	CHE 2136

ENMA460 **Introduction to Solid State Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: PHYS431. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione	Seats (Total: 45)
	MW 5:00pm - 6:15pm	PHY 1410

ENMA466 **Advanced Materials Fabrication Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENMA465; and permission of ENGR-Materials Science & Engineering department.

This course allows students an opportunity to study advanced materials systems in depth through a combination of lectures and hands-on laboratory experiments. Students will be trained in materials processing and characterization techniques. Each student will fabricate materials and devices in our state-of-the-art nanofabrication clean room facility (Fablab), as well as evaluate them using a variety of characterization techniques.

Lab and team project times to be arranged with students.

0101	Gary Rubloff W 10:00am - 11:30am Contact instructor or department for details.	Seats (Total: 4) CHE 2145
0102	Gary Rubloff W 10:00am - 11:30am Contact instructor or department for details.	Seats (Total: 4) CHE 2145
0103	Gary Rubloff W 10:00am - 11:30am Contact instructor or department for details.	Seats (Total: 4) CHE 2145

ENMA471 **Kinetics, Diffusion and Phase Transformations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENMA461. Restriction: Junior standing or higher; or permission of ENGR-Materials Science & Engineering department.

Fundamentals of diffusion, the kinetics of reactions including nucleation and growth and phase transformations in materials.

0101	Raymond Phaneuf TuTh 11:00am - 12:15pm	Seats (Total: 49) CHE 2118

ENMA476 **NanoManufacturing: Materials Design and Systems Integration**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Engineering: Materials Science program.

The fundamentals of nanomanufacturing based on state-of-the-art and future prospects in materials design and systems integration. The course examines functional nanomaterials design and synthesis, structural assembly from nanoscale to macroscale, and device fabrication. Distinct from the current curricular paradigm in many nanotechnology programs that focus on underlying science, this course emphasizes the immediate need for scale-up, process robustness, and system integration issues. Featuring case studies from industry, end of chapter problems, and study questions, the course is for upper-level undergraduate and graduate students, who are interested in the future of manufacturing innovation and technology.

0101	Liangbing Hu TuTh 3:30pm - 4:45pm	Seats (Total: 30) ITV 1111

ENMA486 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Engineering: Materials Science program.

Current research in materials science and engineering and related fields. The lectures are presented by scientists and engineers from academia, national laboratory, US government, etc., in the format of seminars.

0101	You Zhou, Carlos Rios Ocampo W 3:30pm - 5:00pm	Seats (Total: 4) CSI 3117

ENMA487 **Capstone Preparation**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Must be in Engineering: Materials Science program; and senior standing; and permission of ENGR-Materials Science & Engineering department.

In preparation for the senior level design course, students will do background research and develop white papers from which teams will form around short listed design projects. The projects should focus on a society, industry, military or technological based problem in Materials Science and Engineering leading to a design and strategy to address the problem in the following course, ENMA 490. The course will include written and oral presentations of the white papers and team proposals.

0101	Raymond Phaneuf W 1:00pm - 1:50pm	Seats (Total: 40) CHE 2136

ENMA495 **Polymeric Engineering Materials I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENMA300. Restriction: Permission of ENGR-Materials Science & Engineering department.

Study of polymeric engineering materials and the relationship to structural type. Elasticity, viscoelasticity, anelasticity and plasticity of single and multiphase materials. Emphasis is on polymetric materials.

0101	Luz Martinez-Miranda MW 3:30pm - 4:45pm	Seats (Total: 25) CHM 1224

ENMA499 **Senior Laboratory Project**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students work with a faculty member on an individual laboratory project in one or more of the areas of engineering materials. Students will design and carry out experiments, interpret data and prepare a comprehensive laboratory report.

0101	Isabel Lloyd	Seats (Total: 6)
	Contact instructor or department for details.	

ENMA600 **Advanced Atomistic Modeling in Materials**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA600, ENMA 698A, ENMA400 or ENMA489A. Formerly: ENMA698A.

This is an advanced course designed to study atomistic modeling and simulation techniques used in materials research. This course covers the theories, methods, and applications of atomistic-scale modeling techniques in simulating, understanding, and predicting the properties of materials. Specific topics include: molecular statics using empirical force fields; quantum mechanical methods including density functional theory; molecular dynamics simulations; and Monte Carlo and kinetic Monte Carlo modeling.

0101	Yifei Mo	Seats (Total: 5)
	TuTh 9:30am - 10:45am	EGR 0312

ENMA613 **Materials Science of Quantum Computing**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Permission of ENGR-Materials Science & Engineering department. Recommended: Strongly recommended coursework in introduction to materials science, electronic materials, solid state physics, quantum mechanics and basic knowledge in computer programming or MATLAB.

Quantum computing is the emerging field that attempts to perform information processing on a quantum mechanical state (qubit). This graduate level course targets advanced undergraduate and beginning graduate students for an introduction to this field of applied physics and the related material structures needed for elementary quantum computing. This course focuses on targeted topics of quantum mechanics and solid state physics as applicable to ion trap qubits, electron spin qubits, and superconducting qubits with connections to actual material structures their design and means of fabrication.

0101	Christopher Richardson	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	PHY 4222

ENMA637 **Machine Learning for Materials Science**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH461. Recommended: Python knowledge. Restriction: Permission of ENGR-Materials Science & Engineering department. Jointly offered with: ENMA437. Credit only granted for: ENMA437, ENMA489L, or ENMA637.

Familiarizes students with basic as well as state of the art knowledge of machine learning and its applications to materials science and engineering. Covers the range of machine learning topics with applications including feature identification and extraction, determining predictive descriptors, uncertainty analysis, and identifying the most informative experiment to perform next. One focus of the class is to build the skills necessary for developing an autonomous materials research system, where machine learning controls experiment design, execution, and analysis in a closed-loop.

0101	Ichiro Takeuchi, Aaron Kusne	Seats (Total: 10)
	M 10:00am - 12:50pm Class time/details on ELMs	JMP 2116 ONLINE

ENMA641 **Nanotechnology Characterization**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA698T or ENMA641. Formerly: ENMA698T.

Techniques to characterize the properties of materials whose characteristic dimensions are a few to a few hundred nanometers, including conventional nanocrystalline materials, but concentrating on novel nanomaterials: carbon nanotubes, quantum dots, quantum wires, and quantum wells are covered. The emphasis is on recent results from the scientific literature concerning those properties that make nanostructures interesting: quantum effects, novel transport phenomena, enhanced mechanical properties associated with localization and with small crystallite size.

0101	John Cumings	Seats (Total: 3)
	TuTh 12:30pm - 1:45pm	CHE 2136

ENMA650 **Nanometer Structure of Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENMA460; or students who have taken courses with comparable content may contact the department. And permission of ENGR-Materials Science & Engineering department.

The basic concepts required for understanding nanostructured materials and their behavior will be covered. Topics covered include the structural aspects of crystalline and amorphous solids and relationships to bonding types, point and space groups. Summary of diffraction theory and practice. The reciprocal lattice. Relationships of the microscopically measured properties to crystal symmetry. Structural aspects of defects in crystalline solids.

0101	Gottlieb Oehrlein	Seats (Total: 26)
	MW 5:00pm - 6:15pm	EGR 2116

ENMA660 **Thermodynamics in Materials Science**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Corequisite: ENMA650. Restriction: Permission of ENGR-Materials Science & Engineering department.

Thermodynamics of engineering solids. Thermal, diffusional and mechanical interactions in macroscopic systems. Systems in thermal contact, systems in thermal and diffusive contact, systems in thermal and mechanical contact.

0101	Ji-Cheng Zhao TuTh 5:00pm - 6:15pm	Seats (Total: 25) CHM 1228	

ENMA680 **Determination of Structure, Chemical Composition and Defects in Materials**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENMA650. Restriction: Permission of ENGR-Materials Science & Engineering department.

Basic principles of electron microscopy theory, electron diffraction, and imaging theory. The electron beam sample interaction that gives rise to different signals is related to the structural and compositional information that is obtained from a sample using a TEM. The most common TEM techniques for structural characterization of a sample, namely, electron diffraction, bright/dark field imaging, and high resolution lattice imaging are discussed. Compositional information obtained from x-ray fluorescence and electron energy loss as well as the resolution of these techniques is also covered. A description of techniques used to study magnetic materials is also presented.

0101	Lourdes Salamanca-Riba TuTh 3:30pm - 4:45pm	Seats (Total: 21) EGR 3102	

ENMA683 **Structural Determination Laboratory**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Materials Science & Engineering department. Credit only granted for: ENMA698L or ENMA683. Formerly: ENMA698L.

The operation of an electron microscope is covered. TEM techniques that are used to characterize the structure, defects and composition of a sample are presented and used to study a variety of materials. These techniques are: electron diffraction patterns, bright/dark field imaging, high resolution lattic imaging and energy dispersive x-ray spectroscopy. Also covers different sample preparation techniques for TEM. The goal is that the students become independent users of the TEM.

0101	Lourdes Salamanca-Riba Th 9:30am - 12:30pm	Seats (Total: 5) KEB 1237	Lab
0201	Lourdes Salamanca-Riba F 2:30pm - 5:30pm	Seats (Total: 5) KEB 1237	Lab

ENMA688 **Seminar in Materials Science and Engineering**

Credits: 1 Grading Method: Regular, Audit

Current research in materials science and engineering and related fields.

0101	You Zhou, Carlos Rios Ocampo W 3:30pm - 5:00pm	Seats (Total: 24) CSI 3117

ENMA689R **Special Topics in Engineering Materials; Fundamentals of Failure Mechanisms**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

0101	Aristos Christou M 1:00pm - 3:40pm	Seats (Total: 29) JMP 2217
ER01	Aristos Christou Class time/details on ELMs	Seats (Total: 20) ONLINE
RE01	Aristos Christou Class time/details on ELMs	Seats (Total: 4) ONLINE

ENMA698 **Special Problems in Materials Science and Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual, supervised study in materials science and engineering.

Contact department for information to register for this course.

ENMA797 **Independent Study**

Credits: 3 Grading Method: Regular, Audit

This course is designed to provide students with a directed independent study course in order to prepare the scholarly paper required for the master's degree without thesis degree option.

0101	Ichiro Takeuchi Contact instructor or department for details.	Seats (Total: 5)

ENMA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENMA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENMA899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME Engineering, Mechanical Fall 2022

ENME201 **Careers in Mechanical Engineering**

Credits: 1 Grading Method: Sat-Fail

The Mechanical Engineering Curriculum, Career Paths. Research areas in the Mechanical Engineering Department. The Mechanical Engineering Profession.

0101	Sami Ainane, Francis McCluskey Th 12:30pm - 1:30pm	Seats (Total: 50) CSI 1121	

ENME202 **Computing Fundamentals for Engineers**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: Must be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENAE202 or ENME202.

Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

0101	Avik Dutt MW 11:00am - 11:50am Tu 3:00pm - 4:50pm	Seats (Total: 42) EGR 1202 KEB 2111	Lab
0102	Avik Dutt MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 42) EGR 1202 KEB 2111	Lab
0103	Avik Dutt MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 28) EGR 1202 EGR 0312	Lab
0106	Avik Dutt MW 11:00am - 11:50am W 3:00pm - 4:50pm	Seats (Total: 42) EGR 1202 KEB 2111	Lab
0107	Avik Dutt MW 11:00am - 11:50am Th 5:00pm - 6:50pm	Seats (Total: 29) EGR 1202 EGR 0312	Lab

ENME208 **Introduction to Automotive Engineering and Design**

(Perm req)

Credits: 2 Grading Method: Regular

Selected concepts in automotive engineering and design at the introductory level utilizing the Terps Racing Baja SAE student project as a learning instrument. This class compliments ENME408, Automotive Design, which focuses on the Terps Racing Formula SAE car.

0101	Scott Schmidt Tu 6:30pm - 7:30pm Th 6:30pm - 8:30pm	Seats (Total: 10) JMP 1215 JMP 1215	 Discussion

ENME272 **Introduction to Computer Aided Design**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME414 or ENME272.

Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks, and Autodesk Inventor). Two and three dimensional drawing. Dimensioning and specifications. Introduction of CAD based analysis tools. Students will complete a design project.

0101	Mohammad Fazelpour M 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0201	Mohammad Fazelpour Tu 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0301	Mohammad Fazelpour W 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0401	Ryan Smith Th 8:00am - 9:50am	Seats (Total: 42) KEB 2111
0501	Ryan Smith F 1:00pm - 2:50pm	Seats (Total: 42) KEB 2111

ENME331 **Fluid Mechanics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232 and ENES221. Credit only granted for: BIOE331, ENCE305, ENFP300, or ENME331.

Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments.

0101	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm Tu 1:00pm - 2:50pm	Seats (Total: 50) HJP 0226 BPS 1236	Lab
0102	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm W 1:00pm - 2:50pm	Seats (Total: 50) HJP 0226 HBK 0115	Lab
0103	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm Th 1:00pm - 2:50pm	Seats (Total: 50) HJP 0226 ESJ 2204	Lab
0105	Siddhartha Das, Amir Riaz MW 12:00pm - 12:50pm Tu 3:00pm - 4:50pm	Seats (Total: 50) HJP 0226 PHY 4221	Lab
0106	Amir Riaz, Siddhartha Das MW 12:00pm - 12:50pm W 3:00pm - 4:50pm	Seats (Total: 50) HJP 0226 HBK 0115	Lab

ENME332 **Transfer Processes**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. Credit only granted for: ENME332 or ENFP312.

The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis.

0101	Sami Ainane, Amir Riaz MW 9:00am - 9:50am Tu 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	Lab
0102	Amir Riaz, Sami Ainane MW 9:00am - 9:50am W 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	Lab
0103	Sami Ainane, Amir Riaz MW 9:00am - 9:50am Th 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	Lab

0104	Sami Ainane, Amir Riaz MW 9:00am - 9:50am F 1:00pm - 2:50pm	Seats (Total: 45) EGR 1202 CHE 2118	 Lab
	03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.		

ENME350 **Electronics and Instrumentation I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: PHYS271 and PHYS270.

Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Xinan Liu, Jungho Kim MW 8:00am - 8:50am M 1:00pm - 2:50pm	Seats (Total: 48) IRB 0324 EGR 3108	 Lab
0102	Xinan Liu, Jungho Kim MW 8:00am - 8:50am Th 1:00pm - 2:50pm	Seats (Total: 48) IRB 0324 EGR 3108	 Lab
0103	Xinan Liu, Jungho Kim MW 8:00am - 8:50am W 3:20pm - 5:10pm	Seats (Total: 48) IRB 0324 EGR 3108	 Lab
0104	Xinan Liu, Jungho Kim MW 8:00am - 8:50am Tu 3:20pm - 5:10pm	Seats (Total: 48) IRB 0324 EGR 3108	 Lab
0105	Xinan Liu, Jungho Kim MW 8:00am - 8:50am M 3:20pm - 5:10pm	Seats (Total: 48) IRB 0324 EGR 3108	 Lab

ENME351 **Electronics and Instrumentation II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, ENME350, and PHYS270.

Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

0101	Steven Mitchell	Seats (Total: 40)	
	MW 10:00am - 10:50am Tu 1:00pm - 2:50pm	EGR 1202 EGR 3108	Lab
0102	Steven Mitchell	Seats (Total: 40)	
	MW 10:00am - 10:50am W 6:00pm - 7:50pm	EGR 1202 EGR 3108	Lab
0103	Steven Mitchell	Seats (Total: 40)	
	MW 10:00am - 10:50am W 1:00pm - 2:50pm	EGR 1202 EGR 3108	Lab
	03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.		
0104	Steven Mitchell	Seats (Total: 40)	
	MW 10:00am - 10:50am Tu 6:00pm - 7:50pm	EGR 1202 EGR 3108	Lab

ENME361 **Vibration, Controls and Optimization I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES220, ENES221, and MATH246; and (MATH206 or ENME202). Restriction: Must be in Engineering: Mechanical program.

Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

0101	Hosam Fathy	Seats (Total: 180)	
	TuTh 9:30am - 10:45am	EGR 1202	

ENME371 **Product Engineering and Manufacturing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES221; and (ENME392 or STAT400). Restriction: Must be in Engineering: Mechanical program.

Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

0101	Vincent Nguyen	Seats (Total: 35)	
	MW 11:00am - 11:50am Th 5:00pm - 6:50pm	ONLINE EGL 0101	Lab

0102	Vincent Nguyen MW 11:00am - 11:50am Th 3:00pm - 4:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab
0103	Vincent Nguyen MW 11:00am - 11:50am F 9:00am - 10:50am *03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.*	Seats (Total: 35) ONLINE EGL 0101	 Lab
0104	Vincent Nguyen MW 11:00am - 11:50am Th 7:00pm - 8:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab
0105	Vincent Nguyen MW 11:00am - 11:50am W 6:00pm - 7:50pm	Seats (Total: 35) ONLINE EGL 0101	 Lab

ENME382 **Introduction to Materials Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES100; and permission of ENGR-Mechanical Engineering department. Corequisite: MATH241. Recommended: PHYS261 and PHYS260. Restriction: Permission of ENGR-Mechanical Engineering department. Cross-listed with ENMA300. Credit only granted for: ENMA300 or ENME382.

Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.

0101	Samuel Schwarm TuTh 5:00pm - 6:15pm	Seats (Total: 90) CHE 2110
0301	Francis McCluskey MWF 10:00am - 10:50am	Seats (Total: 90) CHE 2110

ENME392 **Statistical Methods for Product and Processes Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241.

Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

Delivered via ITV.

0101	David Bigio TuTh 11:00am - 12:15pm	Seats (Total: 120) JMP 3201	
0201	Michel Cukier Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 120) JMP 3201 JMP 3201	

ENME400 **Machine Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

Design of mechanical elements and planar machines. Failure theories. Design of pressure vessels, joints, rotating elements, and transmission elements. Kinematic structures, graphical, analytical, and numerical analysis and synthesis of linkages, gear trains, and flywheels are covered.

0101	Teng Li, Chandrasekhar Thamire MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 85) CHE 2110 KEB 1110	 Discussion
0201	Chandrasekhar Thamire, Teng Li TuTh 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 85) BPS 1243 BPS 1250	 Discussion

ENME408 **Selected Topics in Engineering Design; Automotive Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

Restriction: Must be in Engineering: Mechanical program; and senior standing. Or permission of ENGR-Mechanical Engineering department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components an engineering systems. Use of computers in design of multivariable systems.

0101	Leonard Hamilton MW 5:00pm - 6:15pm	Seats (Total: 60) KEB 1200	

ENME416 **Additive Manufacturing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME331. And ENME272; or ENME414. Restriction: Permission of ENGR-Mechanical Engineering department.

Develop a comprehensive understanding of fundamental additive manufacturing, 3D printing approaches, including: extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a design for-additive manufacturing skillset for CAD and CAM methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

0101	Ryan Sochol	Seats (Total: 50)
	MWF 12:00pm - 12:50pm	JMP 2121

ENME417 **Numerical Methods in Engineering**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Recommended: Senior standing. Restriction: Permission of ENGR-Mechanical Engineering department. Jointly offered with: ENME745. Credit only granted for: ENME745, ENME808B, ENME417 or ENME489J. Formerly: ENME489J.

Covers the fundamental aspects of how to apply analytical mathematical concepts to discrete data. The course is aimed at graduate students and senior undergraduate students in any area of engineering, and treats the material in a general manner that is not specific to any application or field of specialization.

0101	Johan Larsson	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	CHM 1224

ENME423 **Modern Climate Control and Building Energy Design/Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENES232. Corequisite: ENME332. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamentals and design calculations of heat and moisture transfer in buildings; evaluation of cooling, heating and power requirements of buildings; building energy consumption simulations, use of alternative energy and energy conservation measures in buildings; fundamentals of fans/pumps and air/water distribution in buildings; introduction to refrigeration and energy systems for data centers and other mission-critical facilities.

Delivered via ITV.

0101	Michael Ohadi	Seats (Total: 35)
	TuTh 12:30pm - 1:45pm	JMP 1202

ENME426 **Production Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: BMGT385 or ENME426.

The basic concepts and models needed to understand and design manufacturing systems, including the history of manufacturing, performance measures, queuing systems, variability, production planning and scheduling, lean manufacturing, and pull production control.

0101	Jeffrey Herrmann	Seats (Total: 53)
	MW 2:00pm - 3:15pm	ATL 2428

ENME430 **Fundamentals of Nuclear Reactor Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamental aspects of nuclear physics and nuclear engineering, including nuclear interactions; various types of radiation and their effects on materials and humans; and basic reactor physics topics, including simplified theory of reactor critically.

0101	Mahmoud Massoud	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	JMP 2121

ENME432 **Reactor and Radiation Measurements Laboratory**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME430 and MATH246. Restriction: Permission of ENGR-Mechanical Engineering department.

Basics concepts of nuclear radiation and radiation detectors including types of radiation, radioactive decay, and interactions of radiation with matter.

0101	Amber Johnson	Seats (Total: 10)	
	Th 9:30am - 10:20am	CHE 2145	
	Th 4:00pm - 7:00pm	CHE 2145	Lab

ENME440 **Applied Machine Learning for Engineering and Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME392; or permission of instructor. Restriction: Permission of ENGR-Mechanical Engineering department. Jointly offered with: ENME743. Credit only granted for: ENME440 or ENME743.

Learn how to apply techniques from Artificial Intelligence and Machine Learning to solve engineering problems and design new products or systems. Design and build a personal or research project that demonstrates how computational learning algorithms can solve difficult tasks in areas you are interested in. Master how to interpret and transfer state-of-the-art techniques from computer science to practical engineering situations and make smart implementation decisions.

0101	Mark Fuge	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	TWS 0310

ENME441 **Mechatronics and the Internet of Things**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351. Restriction: Permission of ENGR-Mechanical Engineering department. Credit only granted for: ENME489B or ENME441. Formerly: ENME489B.

Mechatronics and the Internet of Things combines sensors, actuators, computation, and communication to realize integrated objects capable of robust Internet-based interfacing. Students will gain experience with circuit development, mechatronic systems, MicroPython coding, and Internet communication protocols using the ESP32 microcontroller platform. The project-focused course combines lectures and hands-on labs to drive learning at the convergence of mechanics, electronics, and software domains for IoT smart object development.

0101	Don DeVoe	Seats (Total: 60)
	MW 3:30pm - 4:45pm	ESJ 0215

ENME444 **Assistive Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME351; and must have completed or be concurrently enrolled in ENME462. Restriction: Permission of ENGR-Mechanical Engineering department.

Fundamentals of assistive robots used in a wide varietyof ways to help humans with disabilities. Three application areas will be covered: (1) Rehabilitation robotics to recover motor function from neurologic injuries such as stroke, (2) Prosthetics to enable mobility function in amputees, and (3) Social robotics for cognitive impairment and developmental disorders such as autism. Theory behind different control systems employed by assistive robotics, as well as the mechanical design, sensors & actuators, and user interfaces behind representative robots in the respective areas. Guidelines for designing assistive robots. Ethical and regulatory considerations in the design of assistive robots.

0101	Hugh Bruck	Seats (Total: 34)
	TuTh 12:30pm - 1:45pm	JMP 1109

ENME454 **Vehicle Dynamics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: ENME361. Restriction: Permission of ENGR-Mechanical Engineering department.

The fundamentals of passenger vehicle and light truck design and vehicle dynamics are covered. The engineering principles associated with acceleration, braking, handling, ride quality, aerodynamics, and tire mechanics are discussed, as well as suspension and steering design.

0101	Vincent Nguyen MW 3:30pm - 4:45pm	Seats (Total: 66) JMP 3201	

ENME462 **Vibrations, Controls, and Optimization II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENME361. Restriction: Permission of the Mechanical Engineering Department.

Continuation of ENME361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

Delivered via ITV.

0101	Amr Baz MW 10:00am - 10:50am W 1:00pm - 2:50pm	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0102	Amr Baz MW 10:00am - 10:50am F 3:00pm - 4:50pm	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0103	Amr Baz MW 10:00am - 10:50am F 10:00am - 11:50am	Seats (Total: 40) JMP 3201 KEB 2111	 Discussion
0201	Yancy Diaz-Mercado MW 10:00am - 10:50am M 2:00pm - 3:50pm	Seats (Total: 42) SYM 0200 KEB 2111	 Discussion
0202	Yancy Diaz-Mercado MW 10:00am - 10:50am M 11:00am - 12:50pm	Seats (Total: 42) SYM 0200 KEB 2111	 Discussion

ENME467 **Engineering for Social Change**

(Perm req) Credits: 3 Grading Method: Regular

Restriction: Must not be in Engineering: Mechanical program; and junior standing or higher; and must be in a major in ENGR-A. James Clark School of Engineering. Cross-listed with: ENES467. Credit only granted for: ENES467 or ENME467.

Critical analysis of issues at the intersection of engineering, philanthropy and social change. How engineering design, products and processes have created social change in the past and will do so in the future through both intended and unintended consequences. Topics covered include energy, sustainability and climate change, autonomy, the digital future, low cost engineering, manufacturing, philanthropy, ethics and the impact of electronics on society, among others. Faculty and external experts will engage with students on these topics. Students will broadly engage with organizations involved in using technology for positive social impact.

Cross-listed with ENES467. Credit granted for ENME467 or ENES467.

0101	Davinder Anand	Seats (Total: 96)
	F 1:00pm - 3:40pm	IRB 1116

ENME470 Finite Element Analysis

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Senior standing; and permission of ENGR-Mechanical Engineering department.

Basic concepts of the theory of the finite element method. Applications in solid mechanics and heat transfer.

0101	Peter Chung	Seats (Total: 48)
	TuTh 12:30pm - 1:45pm	JMP 2116

ENME472 Integrated Product and Process Development

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS

Prerequisite: ENME331, ENME361, ENME351, and ENME371; and must have completed or be concurrently enrolled in ENME332. Restriction: Permission of the Department of Mechanical Engineering.

Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly.

0101	Shapour Azarm	Seats (Total: 30)	
	Tu 12:00pm - 1:50pm	EGL 0105	
	TuTh 11:00am - 11:50am	ONLINE	Discussion

0102	Miao Yu Th 12:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0103	Elisabeth Smela W 4:00pm - 5:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0104	Aris Cleanthous F 1:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion
0106	Ratnesh Tiwari Tu 2:00pm - 3:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) EGL 0105 ONLINE	 Discussion

ENME473 **Mechanical Design of Electronic Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Design considerations in the packaging of electronic systems. Production of circuit boards and design of electronic assemblies. Vibration, shock, fatigue and thermal considerations.

Delivered via ITV.

0101	Abhijit Dasgupta MW 2:00pm - 3:15pm	Seats (Total: 25) JMP 2121	

ENME480 **Introduction to Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246 or ENES221; and (CMSC131, ENME202, ENAE202 or ENEE150). Restriction: Must be in the Robotics and Autonomous Systems minor; or Permission of ENGR-Mechanical Engineering department.

An introductory course in robotics that will educate students in the elementary concepts of robotics. The course will encompass both theory and experiments.

0101	Nikhil Chopra MW 2:00pm - 2:50pm Th 12:00pm - 2:00pm	Seats (Total: 37) CHM 1402 KEB 2111	 Lab

0102	Nikhil Chopra MW 2:00pm - 2:50pm F 8:00am - 10:00am	Seats (Total: 38) CHM 1402 KEB 2111	Lab

ENME488 **Special Problems**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

Limited to mechanical engineering seniors.

Contact department for information to register for this course.

ENME489 **Special Topics in Mechanical Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Contact department for information to register for this course.

ENME489B **Special Topics in Mechanical Engineering; Entrepreneurial Design Realization**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME 371.

0101	David Bigio MW 5:00pm - 6:15pm	Seats (Total: 20) EGR 2154

ENME489C **Special Topics in Mechanical Engineering; Sustainable Energy Conversion and the Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Kurt Reinhard Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 10) JMP 2217

ENME489F **Special Topics in Mechanical Engineering; Dynamics of Atmospheric Flight**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME331.

0101	David Findlay	Seats (Total: 10)
	W 3:30pm - 6:10pm	JMP 2120
	03/03/2022 (2208) Suz Holding 2 seats for Southern MD students which has been approved by Lisa Kiley.	

ENME489G **Special Topics in Mechanical Engineering; Manufacturing Processes and Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisites: ENME382; and permission of department.

0101	Ho Yeung	Seats (Total: 30)
	TuTh 8:00am - 9:15am	EGR 2154

ENME489O **Special Topics in Mechanical Engineering; Design for Manufacturing and Assembly**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENME382. Restriction: permission of department.

0101	Mohammad Fazelpour	Seats (Total: 40)
	MW 1:00pm - 2:15pm	SPH 1302

ENME489U **Special Topics in Mechanical Engineering; Fluid Structure Interactions**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisites: ENME 361 and ENME 331.

0101	Eleonora Tubaldi	Seats (Total: 10)
	TuTh 9:30am - 10:45am	EGR 3106

ENME489V **Special Topics in Mechanical Engineering; Mechanical Contracting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

0101	Michael Mack	Seats (Total: 30)
	Th 8:00am - 10:40am	CHE 2118

ENME489X **Special Topics in Mechanical Engineering; Energy Conversion Systems for Sustainability**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENES232.

0101	Ashwani Gupta Tu 4:00pm - 6:40pm	Seats (Total: 17) JMP 2120

ENME489Z **Special Topics in Mechanical Engineering; Structural Mechanics - Aerospace Applications**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in mechanical engineering.

Prerequisite: ENES220 and MATH246. Restriction: permission of department.

Contact department for information to register for this course.

ENME605 **Advanced Systems Control**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENME462; or permission of instructor.

Modern control theory for both continuous and discrete systems. State space representation is reviewed and the concepts of controllability and observability are discussed. Design methods of deterministic observers are presented and optimal control theory is formulated. Control techniques for modifying system characteristics are discussed.

0101	Hosam Fathy MW 12:30pm - 1:45pm	Seats (Total: 25) EGR 3114

ENME610 **Engineering Optimization**

Credits: 3 Grading Method: Regular, Audit

Overview of applied single- and multi- objective optimization and decision making concepts and techniques with applications in engineering design and/or manufacturing problems. Topics include formulation examples, concepts, optimality conditions, unconstrained/constrained methods, and post-optimality sensitivity analysis. Students are expected to work on a semester-long real-world multi-objective engineering project.

0101	Shapour Azarm Tu 4:00pm - 6:40pm	Seats (Total: 25) EGR 3106

ENME631 **Advanced Conduction and Radiation Heat Transfer**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENME332; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Theory of conduction and radiation. Diffused and directional, poly- and mono-chromatic sources. Quantitative optics. Radiation in enclosures. Participating media. Integrodifferential equations. Multidimensional, transient and steady-state conduction. Phase change. Coordinate system transformations.

0101	Bao Yang	Seats (Total: 25)
	MW 2:00pm - 3:15pm	CHE 2145

ENME640 Fundamentals of Fluid Mechanics

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Must have completed partial differential equations at the level of MATH 462; or permission of ENGR-Mechanical Engineering department. Formerly: ENME651.

Equations governing the conservation of mass, momentum, vorticity and energy in fluid flows. Low Reynolds number flows. Boundary layers. The equations are illustrated by analyzing a number of simple flows. Emphasis is placed on physical understanding to facilitate the study of advanced topics in fluid mechanics.

0101	James Duncan	Seats (Total: 30)
	MW 3:30pm - 4:45pm	EGR 0135

ENME645 Fluid-Structure Interactions

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENME331 and ENME361. Restriction: Must be a student in the Clark School of Engineering. Credit only granted for: ENME498U, ENME645 or ENME809C. Formerly: ENME809C.

Fundamentals of fluid-structure interactions, fluid-elastic instabilities (buckling, flutter, galloping) and their engineering applications. Possible domains of applications are civil engineering, aerospace engineering, ocean engineering, biomechanics, and soft robotics. Examples include tall bridges, aircraft wing, parachutes, solid rocket motor, turbomachinery, offshore platform, subsea pipelines, paper printing, MEMS mircochannels, blood flow in arteries, and heart valves. The fish swimming mechanics with be studied to inspire novel efficient propulsion mechanisms for soft robotics applications.

0101	Eleonora Tubaldi	Seats (Total: 20)
	TuTh 9:30am - 10:45am	EGR 3106

ENME662 Linear Vibrations

Credits: 3

Grading Method: Regular, Audit

Development of equations governing small oscillations and spatially continuous systems. Newton's equations, Hamilton's principle, and Lagrange's equations. Free and forced vibrations of mechanical systems. Modal analysis. Finite element discretization and reductions of continuous systems. Numerical methods. Random vibrations.

0101	Amr Baz TuTh 5:00pm - 6:15pm	Seats (Total: 30) EGR 1104

ENME690 **Mechanical Fundamentals of Electronic Systems**

Credits: 3

Grading Method: Regular, Audit

An understanding of the fundamental mechanical principles used in design of electronic devices and their integration into electronic systems will be provided. Focus will be placed on the effect of materials compatibility, thermal stress, mechanical stress, and environmental exposure on product performance, durability and cost. Both electronic devices and package assemblies will be considered. Analysis of package assemblies to understand thermal and mechanical stress effects will be emphasized through student projects.

0101	Abhijit Dasgupta MW 2:00pm - 3:15pm	Seats (Total: 25) JMP 2121
ER01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Abhijit Dasgupta Class time/details on ELMs	Seats (Total: 5) ONLINE

ENME701 **Sustainable Energy Conversion and the Environment**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Undergraduate thermodynamics course or permission of instructor.

Discussion of the major sources and end-uses of energy in our society with particular emphasis on renewable energy production and utilization. The course introduces a range of innovative technologies and discusses them in the context of the current energy infrastructure. Renewable sources such as wind and solar, and renewable enabling technologies such as energy storage are discussed in detail. Particular attention is paid to the environmental impact of the various forms of energy. This course is designed to provide, when taken together with ENME635, a comprehensive overview of sustainable energy production and utilization including carbon capture and sequestration.

0101	Kurt Reinhard Radermacher Tu 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217

ME01	Kurt Reinhard Radermacher	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

ENME741 **Operations Research Models in Engineering**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: (ENCE302; or (ENME271 and ENME392)); and (MATH140 and MATH240). Or permission of instructor. Credit only granted for: ENME738, ENME741, or ENCE603. Formerly: ENME738.

A survey of the fundamentals of operations research models and methods in engineering including: optimization using linear programming, nonlinear programming, integer programming, as well as equilibrium/game theory via mixed complementarity problems. Examples of specialized course items include: specifics of optimizing power and gas networks, discussion of other network optimization problems, resource-constrained problems, two-level optimization as an example of mixed integer nonlinear programming (MINLP) programming problems as well as algorithms to solve the above types of problems."

Jointly offered with ENRE689E. Additional note: For Fall 2018 credit is only granted for ENME738, ENME741, ENRE808E, ENCE603. Formerly: ENME738.

0101	Steven Gabriel	Seats (Total: 15)
	Tu 9:30am - 12:00pm	JMP 2120
ER01	Steven Gabriel	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
RE01	Steven Gabriel	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

ENME743 **Applied Machine Learning for Engineering and Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed undergraduate level Statistics (ENME392 or equivalent), or permission of the instructor. Jointly offered with: ENME440. Credit only granted for: ENME440 OR ENME743.

Learn how to apply techniques from Artificial Intelligence and Machine Learning to solve engineering problems and design new products or systems. Design and build a personal or research project that demonstrates how computational learning algorithms can solve difficult tasks in areas you are interested in. Master how to interpret and transfer state-of-the-art techniques from computer science to practical engineering situations and make smart implementation decisions.

0101	Mark Fuge	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TWS 0310

ENME744 **Additive Manufacturing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENME272 and ENME331; or students who have taken courses with comparable content may contact the department. Jointly offered wit h ENME416. Credit only granted for: ENME 416 OR ENME 744.

Develop a comprehensive understanding of fundamental additive manufacturing-alternatively, "three-dimensional (3D) printing-approaches, including extrusion-based deposition, stereolithography, powder bed-based melting, and inkjet-based deposition. Cultivate a "design-for-additive manufacturing" skill set for combining computer-aided design (CAD) and computer-aided manufacturing (CAM) methodologies to produce successful 3D prints. Fabricate 3D mechanical objects using a variety of 3D printing technologies on campus. Execute a design project that demonstrates how additive manufacturing technologies can overcome critical limitations of traditional manufacturing processes.

DE01	Ryan Sochol	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

ENME745 **Numerical Methods in Engineering**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with: ENME417. Credit only granted for: ENME745, ENME808B, ENME417 or ENME489J. Formerly: ENME808B.

Fundamental aspects of how to apply analytical mathematical concepts to discrete data. The course is aimed at graduate students in any area of engineering, and treats the material in a general manner that is not specific to any application or field of specialization.

0101	Johan Larsson	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	CHM 1224

ENME751 **Applied Nonlinear Control**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENME808B or ENME751. Formerly: ENME808B.

An introductory graduate level course on nonlinear control design, which concerns various methods and techniques for the analysis and synthesis of nonlinear control systems.

0101	Jin-Oh Hahn	Seats (Total: 25)
	TuTh 9:30am - 10:45am	EGR 1104

ENME799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENME808 **Advanced Topics in Mechanical Engineering**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

ENME808Q **Advanced Topics in Mechanical Engineering; Modern Climate Control and Building Energy Design/Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: ENES232. Corequisite: ENME332. Restriction: Permission of ENGR-Mechanical Engineering department. Fundamentals and design calculations of heat and moisture transfer in buildings; evaluation of cooling, heating and power requirements of buildings; building energy consumption simulations, use of alternative energy and energy conservation measures in buildings; fundamentals of fans/pumps and air/water distribution in buildings; introduction to refrigeration and energy systems for data centers and other mission-critical facilities.

0101	Michael Ohadi	Seats (Total: 3)
	TuTh 12:30pm - 1:45pm	JMP 1202

ENME898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENME899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENPM Engineering, Professional Masters Fall 2022

ENPM609 **Microprocessor-Based Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: An undergraduate course in computer organization and assembly language programming; and an undergraduate course in high-level language programming or programming experience.

Introduction to microprocessor components, software, and tools. Architectures, instruction sets, and assembly language programming for a commercial microprocessor family. Real-time programming techniques. Peripheral chips such as, parallel ports, counter-timers, DMA controllers, interrupt controllers, and serial communication units. Design projects emphasizing intergrated hardware and software solutions to engineering problems.

0101	Manoj Franklin W 4:00pm - 6:40pm	Seats (Total: 25) JMP 2217
DE01	Manoj Franklin Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM611 **Software Engineering**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Competency in one programming language; and must have completed an undergraduate software engineering course.

Software engineering concepts, methods, and practices important to both the theorist and the practitioner will be covered. The entire range of responsibilities expected of a software engineer are presented. The fundamental areas of requirements development, software design, programming languages, and testing are covered extensively. Sessions on supporting areas such as systems engineering, project management, and software estimation are also included.

0101	Christopher Ackermann M 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
SW01	Christopher Ackermann Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM613 **Software Design & Implementation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM611. Restriction: Permission of Maryland Applied Graduate Engineering.

Covers the software design process, from understanding the need or problem, to creating suitable architecture and detailed design solutions, to preserving and evolving the design during implementation and maintenance. The main study topics include: requirements analysis models; user centered design; architecture design through decomposition and composition; architecture styles and architecture tactics for supporting various quality attributes such as security and usability; design for reuse and with reuse; detailed design object-oriented principles (such as SOLID) and design patterns; approaches for evaluating, comparing, and selecting design solutions; standard notations for documenting architecture views, detailed design, and analysis models; and industry standards for creating design deliverables. Students will acquire not only technical knowledge, but also soft skills such as communication, collaborations, critical thinking, leadership, negotiation, and time management.

0101	Sahana Kini, Tony Barber Th 7:00pm - 9:40pm	Seats (Total: 38) JMP 2216

SW01	Tony Barber, Sahana Kini Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM616 **Wireless Communications: Systems and Network Design Principles**

Credits: 3 Grading Method: Regular, Audit

Introduction to foundational concepts, solutions and design principles of wireless communication used by modern wireless technologies and standards. Topics include: key characteristics and modeling of different radio propagation effects including path loss, fading, interference effects in mobile networks, digital wireless communication techniques used to address channel effects, starting source and channel coding to modulation, link adaptation, scheduling and diversity schemes, advance multi-antenna, various multiple access schemes, multicast, unicast, sidelink communications and random access based channel access, system architecture, channelization schemes, downlink/uplink synchronization, system access and mobility management procedure in a basic cellar network, system design issues, RF coverage and capacity analysis using link budget analysis and basic traffic dimensioning and capacity analysis concepts.

0101	Kamran Etemad M 4:00pm - 6:40pm	Seats (Total: 25) JMP 2222
DE01	Kamran Etemad Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM617 **Compilers**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Knowledge of at least one programming language (C or equivalent). Credit only granted for: ENEE645 or ENPM617.

Covers the underlying techniques of Compiler Construction. The course will introduce the theory and tools that can be employed in order to perform syntax-directed translation of a high-level programming language into an executable code. Topics covered include: lexical analysis; parsing theory; symbol tables; semantic analysis; intermediate representations; runtime environments; code generation; and basic program analysis and optimization. In the optional final project, Students will construct a compiler function for a simple object-oriented language by using LLVM which is a compiler infrastructure, written in C++, and now maintained by Apple Incorporated.

0101	Jerry Wu Th 4:00pm - 6:40pm	Seats (Total: 25) JMP 2116
DE01	Jerry Wu Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM620 **Computer Aided Engineering Analysis**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of Maryland Applied Graduate Engineering. Credit only granted for: ENPM620 or ENRE620/ENNU620.

Computer assisted approach to the solution of engineering problems. Review and extension of undergraduate material in applied mathematics including linear algebra, vector calculus, differential equations, and probability and statistics.

0101	David Schug Contact instructor or department for details.	Seats (Total: 20)
ME01	David Schug Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM622 **Energy Conversion I - Stationary Power**

Credits: 3

Grading Method: Regular, Audit

Thermal engineering of modern power generation systems. Cycle analysis of various modern power generation technologies including gas turbine, combined cycle, waste burning and cogeneration. Energy storage and energy transport.

ME01	Patrick Caton W 4:00pm - 6:40pm	Seats (Total: 20) ONLINE

ENPM631 **TCP/IP Networking**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: ENPM602; or permission of instructor. Restriction: Permission of Maryland Applied Graduate Engineering.

Exploration of how such a variety of devices can use a big range of technologies to connect seamlessly to each other. In the second half of the course we translate the basic knowledge of the protocols to more hands-on exercises in containerization (Docker) and at the end we give an introduction to Kubernetes, that is an open-source system for automating deployment and management of containerized applications.

0101	Pedram Fard Th 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
DE01	Pedram Fard Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM635 **Thermal Systems Design Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate courses in thermodynamics, fluid mechanics and heat transfer. Credit only granted for: ENPM635 or ENME635.

Evaluates the trade-offs associated with thermal systems. Use of software for system simulation, evaluation and optimization. Applications include power and refrigeration systems, pipe flow systems, distillation columns, dehumidifying coils, and co-generation systems.

0101	Martin Cerza Th 7:00pm - 9:40pm	Seats (Total: 17) JMP 2120
DE01	Martin Cerza Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM640 Rehabilitation Robotics

Credits: 3 Grading Method: Regular, Audit

Recommended: Basic understanding of linear time-invariant control systems (e.g. ENPM667) is preferred but not required. No background or previous experience in assistive robotics, human biomechanics, and/or neuroscience is required. Credit only granted for: ENPM808J, ENPM640, or ENME444. Formerly: ENPM808J.

An introduction to a field of robotics dedicated to improving the lives of people with disabilities. The course is designed for students wishing to learn more about rehabilitation robotics, one of the fasting growing fields of robotics. Rehabilitation robotics is the application of robots to overcome disabilities resulting from neurologic injuries and physical trauma, and improve quality of life. This course considers not only engineering design and development, but also the human factors that make some innovative technologies successful and others commercial failures. Engineering innovation by itself, without considering other factors such as evidence-based R&D and product acceptance, may mean that some technologies don't become or remain available or are inefficacious to aid their intended beneficiaries. This course differs from medical robotics in its focus on improving the quality of life through robot-mediated rehabilitation treatments, rather than improving or enhancing applications such as surgical interventions.

0101	Anindo Roy Th 4:00pm - 6:40pm	Seats (Total: 40) JMP 2121
DE01	Anindo Roy Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM645 Human-Robot Interaction

Credits: 3 Grading Method: Regular, Audit

Recommended: Some knowledge of A.I. fundamentals and data analytics recommended, but not required. Credit only granted for: ENPM808K or ENPM645. Formerly: ENPM808K.

To define the intersection of human-robot interactions to include human-computer interfaces, as well as robotic emotions and facial expressions emulations. The result will provide a basis for students to assess the best approaches for interacting effectively with robots. Areas to be covered include biologically-inspired robotics, cognitive robotics, cultural and social aspects of robotics, data mining, examples of human systems interfaces, and machine learning with respect to A.I. principles and limitations.

0101	Josef Schaff M 7:00pm - 9:40pm	Seats (Total: 70) JMP 3201
DE01	Josef Schaff Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM657 **Applied Cryptography**

Credits: 3 Grading Method: Regular, Audit

Recommended: Knowledge of C programming. Credit only granted for: ENPM809A or ENPM657. Formerly: ENPM809A.

The goal of this course is to provide students with a foundational understanding of cryptography as used in the real world. Students will learn about private-key encryption, message authentication codes, key-exchange protocols, public-key encryption, and digital signatures, in addition to learning about underlying primitives such as pseudorandom number generators, block ciphers, and hash functions. The course will also try to convey the "cryptographic mindset," including formal threat modeling and proofs of security. We will emphasize real-world usage of cryptography by covering standards and best practices, discussing attacks on deployed systems, and giving programming assignments meant to reinforce the concepts covered in class.

0101	Daniel Apon M 1:00pm - 3:40pm	Seats (Total: 48) JMP 2116
CY01	Daniel Apon Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM660 **Wind Energy Engineering**

Credits: 3 Grading Method: Regular, Audit

An examination of four central topics in wind energy engineering: the nature of wind energy as a resource for generating electricity; the aerodynamics of wind turbines by which the wind energy is converted into mechanical energy; the mechanics and dynamics of the wind energy system (tower, rotor, hub, drive train, and generator); and the electrical aspects of wind turbines. Additional topics to be included in the course include:Wind turbine design; wind turbine control; wind turbine siting, system design, and integration; Wind energy system economics; and wind energy systems environmental impacts and aspects. The course is intended to pass along substantial subject matter knowledge and skills, it can only be treated as an introduction to this extensive, multidisciplinary topic. However, students are expected to emerge with a substantial knowledge of wind energy systems and the methods used to analyze such systems.

ME01	Kyosung Choo Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM662 **Introduction to Robot Modeling**

Credits: 3 Grading Method: Regular, Audit

This course introduces basic principles for modeling a robot. Most of the course is focused on modeling manipulators based on serial mechanisms. The course begins with a description of the homogenous transformation and rigid motions. It then introduces concepts related to kinematics, inverse kinematics, and Jacobians. This course then introduces Eulerian and Lagrangian Dynamics. Finally, the course concludes by introducing basic principles for modeling manipulators based on parallel mechanisms. The concepts introduced in this course are subsequently utilized in control and planning courses.

0101	Reza Monfaredi W 7:00pm - 9:40pm	Seats (Total: 40) JMP 2121
0201	Reza Monfaredi W 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
0301	Reza Monfaredi M 7:00pm - 9:40pm	Seats (Total: 40) JMP 2116
DE01	Reza Monfaredi Class time/details on ELMs	Seats (Total: 15) ONLINE

ENPM665 **Cloud Security**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENPM809J or ENPM665. Formerly: ENPM809J.

Covers the fundamentals of securing cloud-based workloads from the ground up with many hands-on examples. Through these hands-on exercises the course will demonstrate where the similarities and differences are when securing the cloud compared to securing traditional IT.

0101	Robert Dean Th 7:00pm - 9:40pm	Seats (Total: 75) JMP 3201
0201	Kevin Shivers W 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
0301	Everett Daviage W 4:00pm - 6:40pm	Seats (Total: 39) JMP 2222
CY01	Kevin Shivers Class time/details on ELMs	Seats (Total: 30) ONLINE

ENPM667 **Control of Robotic Systems**

Credits: 3 Grading Method: Regular, Audit

This is a basic course on the design of controllers for robotic systems. The course starts with mainstay principles of linear control, including a review of elementary concepts of systems, and discusses applications to independent joint control. The second part of the course introduces a physics-based approach to control design that uses energy and optimization principles to tackle the design of controllers that exploit the underlying dynamics of robotic systems. The course ends with an introduction to force control and basic principles of geometric control if time allows.

0101	Waseem Malik M 7:00pm - 9:40pm	Seats (Total: 40) JMP 2121
0201	Waseem Malik M 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
0301	Waseem Malik Th 7:00pm - 9:40pm	Seats (Total: 39) JMP 2222
DE01	Waseem Malik Class time/details on ELMs	Seats (Total: 15) ONLINE

ENPM670 **Advanced Energy Audit, Modeling, and Management of Building Systems**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Prior knowledge of undergraduate basic thermodynamics and heat transfer. Recommended: Knowledge of electrical systems and controls is desirable.

Provides students with fundamentals and applications of energy audit, modeling, and management in building energy systems. Energy audit procedures for electrical, lighting, mechanical and HVAC systems will be covered, and will include the economics/life-cycle costing analysis. Students will gain experience on conducting energy audit through real-world project(s). Building energy modeling tools, such as EnergyPlus and eQuest, will be introduced and implemented through assigned projects. The course coverage will also include contemporary topics such as energy management of mission critical facilities such as data centers, integrated building automation and control systems for energy efficiency, and real-time energy management for individual and network of buildings.

0101	Roxana Family, Andres Sarmiento Cajamarca, Michael Ohadi Th 4:00pm - 6:40pm	Seats (Total: 30) JMP 2216
ME01	Andres Sarmiento Cajamarca, Roxana Family, Michael Ohadi Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM672 **Fundamentals for Thermal Systems**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate engineering, physics or chemistry degree. Restriction: Permission of Maryland Applied Graduate Engineering.

Included in this course is an introduction to thermodynamics, fluid mechanics and heat transfer. Emphasis is on gaining an understanding of the physical concepts through the solving of numerical problems associated with simple thermal fluid processes and cycles. Both ideal gases and multiphase fluids will be considered as the working fluids.

0101	Siddhartha Das Th 4:00pm - 6:40pm	Seats (Total: 20) JMP 2217
ME01	Siddhartha Das Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM675 **Operating System Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Undergraduate coursework in computer organization and assembly language programming.

An overview that covers process management (processes and threads, process scheduling, and process synchronization and communication), memory management (main and virtual), storage management (file and I/O), and protection and security.

0101	Manoj Franklin M 4:00pm - 6:40pm	Seats (Total: 20) JMP 2217
DE01	Manoj Franklin Class time/details on ELMs	Seats (Total: 5) ONLINE

ENPM687 **Digital Forensics and Incidence Responses**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Experience with both Windows and Unix-based operating systems, including using the command line.

Students will implement a robust incident response methodology, including proper forensic handling of evidence, and cover legal aspects of national and international law regarding forensics. The bulk of the course covers evidence acquisition, preservation, analysis and reporting on multiple platforms.

CY01	Jonas Amoonarquah Class time/details on ELMs	Seats (Total: 100) ONLINE

ENPM691 **Hacking of C programs and Unix Binaries**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENEE150; or students who have taken courses with comparable content may contact the department.

Teaches the fundamentals of secure programming in C. An in depth discussion on various security vulnerabilities (e.g., buffer overflows) in C applications will be taught with hands-on demo of concepts during the class. Students will learn how a C program runs "under-the-hood". The course will teach nitty-gritty of C programs by analyzing at the assembly level. The course discusses best practices (e.g., coding standards) and design principles for secure programming so that security can be built-in during design time. In addition to assignments, students are required to present papers related to this course.

0101	Dharmalingam Ganesan Th 7:00pm - 9:40pm	Seats (Total: 48) JMP 2116
0201	Kenneth Miltenberger W 7:00pm - 9:40pm	Seats (Total: 100) JMP 3201
0301	Dharmalingam Ganesan Tu 7:00pm - 9:40pm	Seats (Total: 29) JMP 2217
CY01	Dharmalingam Ganesan Class time/details on ELMs	Seats (Total: 40) ONLINE

ENPM694 **Networks and Protocols**

Credits: 3 Grading Method: Regular, Audit

Provides an in-depth review of the Internet with a focus on the end-to-end effects of technologies and protocols that operate in different layers. All protocols and technologies are covered in a holistic framework with an emphasis on their effect on the network and application performance. The course also includes a brief introduction of more modern concepts in the field of networking such as SDN and NFV to encourage deeper study of those topics.

0101	Majid Raissi-Dehkordi Tu 7:00pm - 9:40pm	Seats (Total: 100) JMP 3201
0201	Majid Raissi-Dehkordi Tu 4:00pm - 6:40pm	Seats (Total: 48) JMP 2116
CY01	Majid Raissi-Dehkordi Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM696 **Reverse Software Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENPM691 and CMSC106; or permission of instructor. And permission of ENGR-CDL-Office of Advanced Engineering Education. Credit only granted for: ENPM808F or ENPM696. Formerly: ENPM808F.

An in-depth understanding of software reverse engineering concepts and hands-on training with reverse engineering tools, including disassemblers, decompilers, and code analyzers. Students will become familiar with both low-level software and the x86 instruction set through binary reversing sessions. This course also provides insights into many subjects such as system security, source code analysis, software design, and program understanding that will be beneficial in a variety of fields.

0101	Allen Hazelton W 4:00pm - 6:40pm	Seats (Total: 38) JMP 2216
SW01	Allen Hazelton Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808 **Advanced Topics in Engineering**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	George Syrmos Contact instructor or department for details.	Seats (Total: 40)

ENPM808A **Advanced Topics in Engineering; Introduction to Machine Learning**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Nikhil Chopra Tu 4:00pm - 6:40pm	Seats (Total: 38) JMP 2216
DE01	Nikhil Chopra Tu 4:00pm - 6:40pm	Seats (Total: 10) ONLINE

ENPM808J **Advanced Topics in Engineering; Design of Experiments**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Tony Barber W 7:00pm - 9:40pm	Seats (Total: 30) JMP 2216
SY01	Tony Barber Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM808N **Advanced Topics in Engineering; Solar Energy and Technologies**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

ME01	Yang Li Class time/details on ELMs	Seats (Total: 20) ONLINE
ME02	Yang Li Tu 7:00pm - 9:40pm	Seats (Total: 20) ONLINE

ENPM808O **Advanced Topics in Engineering; AI-Based Software Systems**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	Mikael Lindvall, Joshua Giltinan Tu 7:00pm - 9:40pm	Seats (Total: 35) JMP 2216
SW01	Mikael Lindvall, Joshua Giltinan Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM808W **Advanced Topics in Engineering; Data Science**

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

0101	A Seyed Tu 7:00pm - 9:40pm	Seats (Total: 40) JMP 2116
DE01	A Seyed Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM808X **Advanced Topics in Engineering; Software Development for Robotics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced topics selected by the faculty for students in the professional master of engineering program. May be taken for repeated credit when identified by topic title.

Prerequisite: ENPM809Y or equivalent

0101	Tommy Chang W 7:00pm - 9:40pm	Seats (Total: 48) JMP 2116
DE01	Tommy Chang Class time/details on ELMs	Seats (Total: 20) ONLINE

ENPM809K **Special Topics in Engineering; Fundamentals for Artificial Intelligence and Deep Learning Framework**

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	George Zaki Th 7:00pm - 9:40pm	Seats (Total: 52) JMP 2121
DE01	George Zaki Class time/details on ELMs	Seats (Total: 10) ONLINE

ENPM809W **Special Topics in Engineering; Introduction to Secure Coding for Software Engineering**

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Gananand Kini Tu 4:00pm - 6:40pm	Seats (Total: 52) JMP 2121
SW01	Gananand Kini Class time/details on ELMs	Seats (Total: 30) ONLINE

ENPM809Y **Special Topics in Engineering; Introductory Robot Programming**

Credits: 3 Grading Method: Regular, Audit

Special topics selected by the faculty for students in the professional master of engineering and graduate certificate in engineering program. May be taken for repeated credit when identified by topic title.

0101	Zeid Kootbally Tu 7:00pm - 9:40pm	Seats (Total: 50) JMP 2121
0201	Zeid Kootbally Th 4:00pm - 6:40pm	Seats (Total: 48) JMP 3201
DE01	Zeid Kootbally Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE Reliability Engineering Fall 2022

ENRE489 **Special Topics in Reliability Engineering**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics of current importance in reliability engineering.

Contact department for information to register for this course.

ENRE600 **Fundamentals of Failure Mechanisms**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ENGR-Mechanical Engineering. Cross-listed with: ENMA626. Credit only granted for: ENMA626, ENMA698M, ENMA698R, or ENRE600.

Advanced failure mechanisms in reliability engineering wiil be taught from a basic materials and defects point of view. The methods of predicting the physics of failure of devices, materials, components and systems are reviewed. The main emphasis will be given to basic degradation mechanisms through understanding the physics, chemistry, and mechanics of such mechanisms. Mechanical failures are introduced through understanding fatigue, creep and yielding in materials, devices and components. The principles of cumulative damage and mechanical yielding theory are taught. The concepts of reliability growth, accelerated life testing, environmental testing are introduced. Physical, chemical and thermal related failures are introduced through a basic understanding of degradation mechanisms such as diffusion, electromigration, defects and defect migration. The failure mechanisms in basic material types will be taught. Failure mechanisms observed in real electronic devices and electronic packaging will also be presented. Problems related to manufacturing, and microelectronics will be analyzed. Mechanical failures are emphasized from the point of view of complex fatigue theory.

Sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Aristos Christou M 1:00pm - 3:40pm	Seats (Total: 29) JMP 2217
ER01	Aristos Christou Class time/details on ELMs	Seats (Total: 20) ONLINE
RE01	Aristos Christou Class time/details on ELMs	Seats (Total: 4) ONLINE

ENRE602 **Principles of Reliability Analysis**

Credits: 3

Grading Method: Regular, Audit

Cross-listed with: ENNU652. Credit only granted for: ENRE602 or ENNU652.

Principal methods of reliability analysis, including fault tree and reliability block diagrams; Failure Mode and Effects Analysis (FMEA); event tree construction and evaluation; reliability data collection and analysis; methods of modeling systems for reliability analysis. Focus on problems related to process industries, fossil-fueled power plant availability, and other systems of concern to engineers.

Sections that begin with a letter are taught via ITV and are not intended for College Park campus students.

0101	Katrina Groth W 1:00pm - 3:40pm	Seats (Total: 20) JMP 2217
ER01	Katrina Groth Class time/details on ELMs	Seats (Total: 10) ONLINE
RE01	Katrina Groth Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE641 **Probabilistic Physics of Failure and Accelerated Testing**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENRE641 or ENRE650. Formerly: ENRE650.

Models for life testing at constant stress. Graphical and analytical methods. Test plans for accelerated testing. Competing failure modes and size effects. Models and data analyses for step and time varying stresses. Optimizing of test plans.

0101	Mohammad Modarres W 12:00pm - 2:40pm	Seats (Total: 13) JMP 2222
ER01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE

ENRE648 **Special Problems in Reliability Engineering**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Contact department for information to register for this course.

ENRE648M **Special Problems in Reliability Engineering; Risk Analysis for Engineering**

Credits: 3 Grading Method: Regular, Audit

For students who have definite plans for individual study of approved problems. Credit given according to extent of work.

Cross-listed with ENCE489L, ENCE620, and ENSE698R. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub Tu 2:00pm - 4:40pm	Seats (Total: 20) CHE 2116

ENRE670 **Probabilistic Risk Assessment**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENRE602.

Why study risk, sources of risk, overview of Risk Assessment and Risk Management, relation to System Safety and Reliability Engineering; measures, representation, communication, and perception of risk; overview of use of risk assessment results in decision making; overview of Probabilistic Risk Assessment (PRA) process; detailed converge of PRA methods including (1) methods for risk scenario development such as identification of initiators, event sequence diagrams, event trees, causal modeling (fault trees, influence diagrams, and hybrid methods), and simulation approaches; (2) methods of risk scenario likelihood assessment, including quantitative and qualitative approaches, as well as uncertainty modeling and analysis. Also covers methods for risk modeling of system hardware behavior, physical phenomena, human behavior, software behavior, organizational environment, and external physical environment. Additional core topics include risk model integration and quantification (Boolean-based, binary decsion diagram, Bayesian belief networks, and hybrid methods), simulation-based Dynamic PRA methods (discrete and continuous) and several examples of large scale PRAs for space missions, nuclear power, aviation and medical systems.

0101	Mohammad Modarres Th 3:00pm - 5:40pm	Seats (Total: 17) JMP 2222
ER01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 15) ONLINE
RE01	Mohammad Modarres Class time/details on ELMs	Seats (Total: 10) ONLINE

ENRE689E **Special Topics in Engineering Materials; Operations Research Models in Engineering**

Credits: 3 Grading Method: Regular, Audit

Jointly offered with ENME741. Credit only granted for: ENME738, ENME741, ENRE808E, ENCE603. Formerly: ENME738.

0101	Steven Gabriel Tu 9:30am - 12:00pm	Seats (Total: 15) JMP 2120
ER01	Steven Gabriel Class time/details on ELMs	Seats (Total: 10) ONLINE

RE01	Steven Gabriel	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

ENRE799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENRE898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENRE899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENSE Systems Engineering Fall 2022

ENSE621 **Systems Engineering Concepts and Processes: A Model-Based Approach**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ENGR-Institute for Systems Research. Credit only granted for: ENPM641 or ENSE621.

An INCOSE-oriented introduction to model-based systems engineering. Provides an overview of systems engineering concepts, processes and methods, with a particular focus on: the development of stakeholder and system requirements; characteristics of well-written requirements; the use of SysML software tools to develop of system- and element-level architectures; and the relationship between requirements and architecture. Architecture-related topics include specification and visualization of system attributes, behavior, and interfaces. Other topics include acquisition and development life cycle models; operational concepts and use cases; requirements and design traceability; analysis, modeling and simulation; systems engineering management; risk management; configuration management; systems-of-systems; and system complexity. The course includes a class project in which teams of 3-5 students use SysML to develop stakeholder requirements, system requirements, and a logical system architecture for an engineered system of interest to them and then perform a design trade-off analysis for some aspect of the system.

0101	Tony Barber	Seats (Total: 22)
	Tu 7:00pm - 9:40pm	JMP 2222
DE01	Tony Barber	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

ENSE623 **System Development, Verification, and Validation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Institute for Systems Research; and ENSE622. Credit only granted for: ENPM643 or ENSE623.

This course completes the ENSE621, ENSE622 sequence. It covers system simulation development and a variety of verification and validation topics. It addresses development testing and operational testing; test methodologies; the planning of test programs and Test and Evaluation Master Plans (TEMPs); the planning and execution of tests; and the writing of test plans and test reports. Topics include verification methods; specification-based testing; test verification matrices; model-based verification; model checking and other formal approaches to verification; design of experiments; performance testing; reliability testing; usability/human factors testing; and other types of testing. The course includes a class project in which teams of 3-5 students: develop requirements for a simulation that supports a system analysis of interest (the user need); develop the simulation (in MATLAB); verify that it meets its requirements; and validate that it may be used to support the analysis of interest.

0101	Steven Biemer W 7:00pm - 9:40pm	Seats (Total: 25) JMP 2222
DE01	Steven Biemer Class time/details on ELMs	Seats (Total: 4) ONLINE

ENSE626 **System Life Cycle Analysis and Risk Management**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ENGR-Institute for Systems Research.

This course covers topics related to estimating the costs and risks incurred through the lifetimes of projects, products and systems. In addition, treatment is given to methods that determine the drivers of costs and risks and facilitate determination of the most effective alternatives to reducing them. Also covered, are relevant analytic tools from probability and statistics and also important managerial and organizational concepts. Extensive use is made of case studies and examples from industry and government.

DE01	Nidak Sumrean Class time/details on ELMs	Seats (Total: 15) ONLINE

ENSE698R **Special Topics in Systems Engineering; Risk Analysis for Engineering**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with ENCE489L, ENCE620, and ENRE648M. Credit only granted for ENCE489L, ENCE620, ENRE648M, or ENSE698R.

0101	Bilal Ayyub Tu 2:00pm - 4:40pm	Seats (Total: 20) CHE 2116

ENSE699 **Directed Study in Systems Engineering**

(Perm req) Credits: 1-3 Grading Method: Sat-Fail

Directed study in Systems Engineering.

Contact department for information to register for this course.

ENSE799 **Systems Engineering Thesis; Masters Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

The application of systems engineering concepts, principles, and theories will be applied to the Master's Thesis project. Project/thesis work will be defined and selected early in student's program and supervised by a university faculty mentor.

Contact department for information to register for this course.

ENSP Environmental Science and Policy Fall 2022

ENSP101 **Introduction to Environmental Science**

Credits: 3 Grading Method: Regular CORE: PS General Education: DSNS

One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

0101	Annette Spivy TuTh 11:00am - 12:15pm Th 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 EGR 1102	Discussion
0102	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH 0405	Discussion
0103	Annette Spivy TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 24) SHM 2102 MTH 0302	Discussion
0104	Annette Spivy TuTh 11:00am - 12:15pm F 1:00pm - 1:50pm	Seats (Total: 24) SHM 2102 EGR 2116	Discussion
0105	Annette Spivy TuTh 11:00am - 12:15pm Th 2:00pm - 2:50pm	Seats (Total: 25) SHM 2102 EGR 3102	Discussion

0106	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH B0423	Discussion
0107	Annette Spivy TuTh 11:00am - 12:15pm F 10:00am - 10:50am	Seats (Total: 24) SHM 2102 MTH 0411	Discussion
FC01	Annette Spivy TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHE 2136	

ENSP305 **Applied Spatial Analysis in Environmental Science and Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG373; or permission of Environmental Science and Policy Program. Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits; and permission of Environmental Science and Policy program.

Intended for students interested in pursuing career or graduate research opportunities that will include identifying/querying/processing environmental datasets, detailed spatial analysis of environmental data, and applications of predictive environmental modeling. Students will learn necessary skills to analyze and process environmental data through hands-on training in commonly used software and a series of topical case studies. Data analysis and data processing will be taught using publicly available real-world environmental data sets.

0101	Annette Spivy TuTh 5:00pm - 6:15pm	Seats (Total: 23) ANS 0509

ENSP330 **Introduction to Environmental Law**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Junior standing or higher. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

An overview of environmental law, from its common law roots to its role in the modern regulatory state, including an examination of major federal environment statutes and the policy debates inherent in them. Other areas covered include civil and criminal enforcement, standing to sue, land use control, and regulatory takings.

0101	Joanna Goger TuTh 11:00am - 12:15pm	Seats (Total: 35) KEY 0116

ENSP340 **Water: Science, Ethics, and Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: ENSP101 and ENSP102. Restriction: Must have earned a minimum of 60 credits. And must be a major in the Environmental Science and Policy program; or permission of Environmental Science and Policy program.

Exploration of the science, policy, and ethical aspects of water resource protection and management. Focus on water pollution, water availability, ecosystems, and sustainability

0101	Caroline Boules TuTh 3:30pm - 4:45pm	Seats (Total: 25) EGR 0135

ENSP386 **Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular

Restriction: Must have internship proposal approved by the concentration advisor, the director of ENSP and the student's internship sponsor.

Contact department for information to register for this course.

ENSP399 **Special Topics in Environmental Science and Policy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

Contact department for information to register for this course.

ENSP399R **Special Topics in Environmental Science and Policy; Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A substantive and specialized examination of contemporary issues in environmental science or policy.

0601	Annette Spivy Contact instructor or department for details.	Seats (Total: 10)
1001	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)

ENSP400 **Capstone in Environmental Science and Policy**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

Prerequisite: ENSP101; and ENSP102. Restriction: Must be in Environmental Science and Policy program; and senior standing; and permission of the Environmental Science and Policy Program.

Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

0101	Mark Carroll TuTh 12:30pm - 1:45pm	Seats (Total: 35) ESJ 1309
0102	Joanna Goger TuTh 12:30pm - 1:45pm	Seats (Total: 35) ESJ B0320

ENSP499 **Honors Thesis Research**

Credits: 1-6 Grading Method: Regular

Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

Contact department for information to register for this course.

ENST Environmental Science and Technology Fall 2022

ENST200 **Fundamentals of Soil Science**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: LL General Education: DSNL

Corequisite: CHEM131 and CHEM132; or permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST200 or NRSC200. Formerly: NRSC200.

Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

0101	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm Tu 5:00pm - 7:50pm	Seats (Total: 24) HJP 0226 ANS 0538	 Lab
0102	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm W 5:00pm - 7:50pm	Seats (Total: 24) HJP 0226 ANS 0538	 Lab
0103	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm Th 5:00pm - 7:50pm	Seats (Total: 24) HJP 0226 ANS 0538	 Lab

0104	Eni Baballari, Raymond Weil TuTh 3:30pm - 4:45pm Tu 9:30am - 12:20pm	Seats (Total: 24) HJP 0226 ANS 0538	 Lab

ENST233 **Introduction to Environmental Health**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Examines how humans are affected by the quality of our air, water, soil and food supply as well as how human activities alter these survival necessities. Students will learn how the evolution and prosperity of human populations have resulted in degradation of our environment and the impact of environmental degradation on the health of people. The implications of individual and collective choices for sustainable food production, population management, and resource utilization will be explored.

0101	Lance Yonkos, Jennifer Gunnulfsen TuTh 9:30am - 10:45am M 3:00pm - 3:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0102	Jennifer Gunnulfsen, Lance Yonkos TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0103	Jennifer Gunnulfsen, Lance Yonkos TuTh 9:30am - 10:45am M 4:00pm - 4:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion
0104	Jennifer Gunnulfsen, Lance Yonkos TuTh 9:30am - 10:45am W 4:00pm - 4:50pm	Seats (Total: 20) ANS 0408 ANS 0422	 Discussion

ENST282 **Ecological Innovation and Entrepreneurship**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENST282 or ENST499K. Formerly: ENST499K.

Ecotechnology innovation is taught with design thinking, which uses an iterative cycle of developing customer empathy, learning ecological technology, appreciating environmental stewardship, brainstorming, rapid prototyping, user experience, testing and redesign. Environment entrepreneurship is based on the Lean Startup process, which uses customer discovery, encourages quick product development, reduces start-up costs, tests ideas quickly, and employs designed experiments. A multidisciplinary academic setting embraces designing, building, testing and marketing novel technologies that enhance the environmental needs of humans. Students will learn in an active environment that requires working creatively, collaboratively, diligently, and precisely to create a business model and tangible prototype for a new commercial product.

0101	David Tilley	Seats (Total: 20)
	MWF 10:00am - 10:50am	ANS 0422

ENST301 **Field Soil Morphology I**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of AGNR-Environmental Science & Technology department. Formerly: ENST308.

This is a field-oriented course that introduces students to the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Brian Needelman	Seats (Total: 10)
	Contact instructor or department for details.	

ENST302 **Field Soil Morphology II**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST301. Restriction: Permission of AGNR-Environmental Science & Technology department. Formerly: ENST308.

This is the second field-oriented course in a three course sequence that provides intermediate training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Brian Needelman	Seats (Total: 7)
	Contact instructor or department for details.	

ENST303 **Field Soil Morphology III**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST302. Restriction: Permission of AGNR-Environmental Science & Technology department. Formerly: ENST308.

This is the third field-oriented course in a three course sequence that provides intermediate training for students in the techniques used to (1) describe soil morphology, and site and profile characteristics, (2) make land use interpretations based on soil characteristics, and (3) classify soils. This class is designed to prepare students for the Regional Collegiate Soil Judging Contest and for students to gain experience in the description and interpretation of soils in the field.

0101	Brian Needelman	Seats (Total: 15)
	Contact instructor or department for details.	

ENST333 **Ecosystem Health and Protection**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST233. Restriction: Must be in one of the following programs (Environmental Sci & Tech: Ecological Tech Design; Environmental Sci & Tech: Environmental Health; Environmental Sci & Tech: Soil & Watershed Science; Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci & Tech). Credit only granted for: ENST499A or ENST333. Formerly: ENST499A.

Discussion of the philosophies, principles, and practices for assessing ecosystem health with emphasis on an ecosystem perspective rather than a human health perspective. Degradation associated with human activities will be emphasized. Topics will range from local to regional to global issues, including a discussion on global warming and its possible impacts on ecosystems. Concepts will be clarified using case histories from the Chesapeake Bay watershed.

0101	Jennifer Gunnulfsen	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ANS 0422

ENST360 **Ecosystem Ecology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI160 and BSCI161; or BSCI106. Restriction: Must be in one of the following programs (Environmental Sci & Tech: Ecological Tech Design; Environmental Sci & Tech: Environmental Health; Environmental Sci & Tech: Soil & Watershed Science; Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci & Tech).

The study of ecology has a long and interesting history, from early society's efforts to understand and alter their environment as a matter of survival to the challenges the modern world is facing that are global in scale. Through the course text, distributed supplemental chapter readings and an understanding of the scientific literature, this course will cover the essential concepts and principles of ecosystem ecology as well as its history and past and present controversies. Several of the basic methods and tools of field research and the applied management of ecosystems will be discussed and demonstrated with several field excursions in the natural environs of the DC area. Central to this course will be the understanding that modern human society is an integral part of nature, with the power to impact and influence elements of the natural world at multiple scales. An analysis of policy implications for the biosphere will be discussed.

The study of ecology has a long and interesting history, from early society's efforts to understand and alter their environment as a matter of survival to the challenges the modern world is facing that are global in scale. Through the course text, distributed supplemental chapter readings and an understanding of the scientific literature, this course will cover the essential concepts and principles of ecosystem ecology as well as its history and past and present controversies. Several of the basic methods and tools of field research and the applied management of ecosystems will be discussed and demonstrated with several field excursions in the natural environs of the DC area. Central to this course will be the understanding that modern human society is an integral part of nature, with the power to impact and influence elements of the natural world at multiple scales. An analysis of policy implications for the biosphere will be discussed.

0101	Jose-Luis Izursa, Mitchell Pavao-Zuckerman TuTh 2:00pm - 3:15pm M 1:00pm - 1:50pm	Seats (Total: 22) ATL 1113 ANS 0422	Discussion
0102	Mitchell Pavao-Zuckerman, Jose-Luis Izursa TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 22) ATL 1113 ANS 0422	Discussion

ENST388 **Honors Thesis Research**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 1)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 1)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 1)

ENST389 **Internship**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Credit will be granted for practical work carried out by students placed in work environment related to their stated career goals. Students must do an in-depth study in some portion of the work experience and produce a special project or report related to this study. A student work log is also recommended. An evaluation from the external supervisor of the project will be required. Credit arranged with supervising faculty member.

0101	Jose-Luis Izursa	Seats (Total: 50)
	Contact instructor or department for details.	

ENST403 **Invasive Species Ecology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ENST403, ENST603, or ENST689R.

We will examine ecological, evolutionary, and anthropogenic processes facilitating or resisting biological invasions, and consider their environmental, economic, and human health impacts. We will consider various management strategies to mitigate invasions and identify areas of future research. Field trips and detailed discussion of recent findings and controversies in the literature will help illustrate fundamental concepts of invasions among various ecosystems.

0101	Paul Leisnham	Seats (Total: 20)
	MWF 10:00am - 10:50am	ANS 1422

ENST411 **Principles of Soil Fertility**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T611. Credit only granted for: ENST411 or NRSC411. Formerly: NRS C411.

Soil factors affecting plant growth and quality with emphasis on the bio-availability of mineral nutrients. The management of soil systems to enhance plant growth by means of crop rotations, microbial activities, and use of organic and inorganic amendments.

0101	Raymond Weil	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 1422

ENST414 **Soil Morphology, Genesis and Classification**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200. Credit only granted for: ENST414 or NRSC414. Formerly: NRSC414.

Processes and factors of soil genesis. Taxonomy of soils of the world by U.S. System. Soil morphological characteristics, composition, classification, survey and field trips to examine and describe soils.

0101	Brian Needelman	Seats (Total: 20)	
	MW 10:00am - 10:50am	ATL 0201	
	M 5:00pm - 5:50pm	HJP 0210	
	M 2:00pm - 5:00pm	HJP 0210	Lab

ENST415 **Renewable Energy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, PHYS121, and MATH113; or permission of AGNR-Environmental Science & Technology department. Restriction: Must be in a major within AGNR-Environmental Science & Technology department.

An overview of renewable energy technologies and their current applications. Emphasis will be placed on technological readiness, efficiency and sustainability of renewable energy alternatives. Technologies include solar thermal, photovoltaics, biodiesel, ethanol, anaerobic digestion, wind, hydroelectric, and microbial fuel cells.

0101	Amro Hassanein	Seats (Total: 40)
	MWF 11:00am - 11:50am	ANS 0422

ENST417 **Soil Hydrology and Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENST200; and (MATH113 or MATH115). Or permission of instructor. Credit only granted for: ENST417 or NRSC417. Formerly: NRSC417.

A study of soil water interactions: the hydrologic cycle; the unique properties of water and soil; the soil components and their interactions; the field water cycle; transport processes involving water, heat and solutes; human effects on soil and groundwater; as well as the measurement, prediction, and control of the physical processes taking place in and through the soil.

0101	Robert Hill	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	JMP 1202

ENST432 **Environmental Microbiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131 and CHEM132. And BSCI170 and BSCI171; or BSCI105. Credit only granted for: ENST432 or ENST499M. Formerly: ENST499M.

Microorganisms are everywhere and mediate many of the processes that we observe everyday. These organisms are the unseen catalysts for numerous industrial processes and are critical to many emerging technologies and novel products. Environmental microbiologists ask: How do microorganisms in the environment benefit society? This course will answer this question by examining microbes in bioremediation, food safety, climate change, and biotechnology.

0101	Stephanie Yarwood	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	PLS 1129

ENST441 **Sustainable Agriculture**

Credits: 3 Grading Method: Regular

Credit only granted for: ENST441 or NRSC441. Formerly: NRSC441.

Environmental, social and economic needs for alternatives to the conventional, high-input farming systems which currently predominate in industrial countries. Strategies and practices that minimize the use of non-renewable resources.

0101	Raymond Weil	Seats (Total: 40)
	TuTh 9:30am - 10:45am	ANS 0422

ENST450 **Wetland Ecology**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: BIOM301 and ENST360; or permission of AGNR-Environmental Science & Technology department. Restriction: Permission of AGNR-Environmental Science & Technology department. Jointly offered with: ENST650. Credit only granted for: ENST450, ENST650, or MEES650.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips (normally 2 days total during the semester) and in-class labs. Hands-on activities and exercises include identification of wetland plant species, wetland mapping and delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin	Seats (Total: 24)
	TuTh 2:00pm - 3:15pm	ANS 0538

ENST456 **Spatial Analysis and Ecological Sampling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Recommended: GEOG306 and GEOG373. Restriction: Senior standing or higher; and permission of instructor. Credit only granted for: ENST456 or ENST499T. Formerly: ENST499T. Additional information: Students will need to provide an 8GB (or larger) thumb drive for data storage.

Teaches ENST students ecological sampling methods and applied spatial analysis skills. Students will work in small groups on research projects they develop and test during the semester. Students will develop a research hypothesis, test their hypothesis, display it visually in QGIS, and analyze it with appropriate statistical methods in QGIS and R Studio culminating in a final presentation.

0101	Shannon Browne	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ANS 0509

ENST460 **Principles of Wildlife Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed two semesters of biology laboratory; and (ENST360; or BSCI361). Or permission of AGNR-Environmental Science & Technology department.

Ecological principles and requirements of wildlife as basis for management, and introduction to the scientific literature. Conflicts in wildlife management, government administration of wildlife resources, legislation, and history of the wildlife management profession.

0101	Jennifer Mullinax TuTh 12:30pm - 1:45pm	Seats (Total: 40) ANS 0412

ENST472 **Capstone**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: CS | General Education: DSSP

Restriction: Must be in a major within AGNR-Environmental Science & Technology department; and permission of AGNR-Environmental Science & Technology department. Additional information: This is the pinnacle course for students majoring in ENST and is therefore recommended in one of the students' final semesters.

This capstone course focuses on professional project preparation, presentation, and critical evaluation on environmental science research. Students will develop and present original projects and critique projects presented by others.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 10)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 10)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 10)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 10)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 10)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 10)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 10)

1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 10)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 10)
2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 10)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 10)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 10)
2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 10)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 10)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 10)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 10)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 10)
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 10)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 10)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 10)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 10)
3202	Candice Duncan Contact instructor or department for details.	Seats (Total: 5)

3301	Adel Shirmohammadi Contact instructor or department for details.	Seats (Total: 4)
3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 10)

ENST485 **Water Management in Urban Environment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH120, MATH130, MATH136, or MATH140. Credit only granted for: ENST485 OR ENST489Z. Formerly: ENST489Z.

Historically, with the exception of certain locations, water has been available in sufficient quantities, and providing supporting infrastructure has been relatively straightforward. In urban areas, the concentration of people and the drastic changes in land use, have altered the fluxes of water, sediments, chemicals, and microorganisms. As the population increases and the number of large urban areas keeps growing (both in U.S. and internationally), managing water in urban areas is becoming more challenging. Water must be supplied for domestic, commercial, and industrial use, as well as irrigation and maintaining and enhancing local environments (e.g., urban streams). In addition, stormwater must be managed to prevent flooding and environmental damage, and used water, which contains organic matter, nutrients, and other constituents that can be extracted and reused, must be collected and managed. In this course we take a systems approach to urban water hydrology, engineering, planning and management. We will explore urban water cycle, urban runoff and drainage characteristics, urban water supply and demand, stormwater collection and treatment and designing best management practices. Additionally, we look at the climate impacts on the urban water cycle.

0101	Masoud Negahban-Azar TuTh 12:30pm - 1:45pm	Seats (Total: 40) ANS 0422

ENST486 **Senior Professional Experience**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: ENST389. Restriction: Must be in the Environmental Science and Technology program; and permission of AGNR-Environmental Science & Technology department.

Students will arrange an off-campus professional-level work experience related to Environmental Science and Technology (ENST) to develop expertise in a specific area of their ENST concentration curriculum. Classroom sessions will frame student experiences within the broader discipline of Environmental Science and Technology. This course will tie together current practices in the ENST career industry, proposal writing, critical analysis, and culminate in a final paper and presentation.

0101	Jose-Luis Izursa F 10:00am - 2:30pm	Seats (Total: 40) Location: TBA

ENST487 **Environmental Conflicts and Decision Making**

Credits: 2 Grading Method: Regular

Restriction: Senior standing. And must be in one of the following programs (Environmental Sci & Tech: Natural Resources Mgmt; Environmental Sci&Pol-Wildlife Ecology & Mgmt) ; or permission of AGNR-Environmental Science & Technology department.

Study major cases which focus on environmental science with concentration on the role and techniques of negotiation, collaborative decision making, and adaptive resource management as an environmental conflict resolution process.

0101	Jennifer Mullinax W 10:00am - 12:00pm	Seats (Total: 15) ANS 0501

ENST489 **Research Experience**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An advanced research-based course in the field of environmental science and technology.

Contact department for information to register for this course.

ENST499 **Special Topics in Environmental Science and Technology**

(Perm req)

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to register for this course.

ENST499L **Special Topics in Environmental Science and Technology; Ground Water Use in the Developing World**

Credits: 1 Grading Method: Regular

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Overview of ground water as a water resource, its availability, quality and extraction in various developing countries. The role of a consultant in adapting modern technologies to developing ground water as a viable water resource.

0101	Yaron Sternberg M 12:00pm - 12:50pm	Seats (Total: 40) ANS 0422

ENST499U **Special Topics in Environmental Science and Technology; Environmental Sample Preparation and Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

This has been designed to teach the theories, principles and methods of analyzing environmental contaminants in a given media utilizing various instruments Gas Chromatography(GC) - Mass Spectrometry (MS), Electron Capture Detection (ECD), Flame Ionization Detection (FID), High PressureLiquid Chromatography (HPLC), Ultra Violet-Visible (UV-Vis) and Ion Chromatography (IC) and analytical techniques Solid Phase Extraction (SPE), Thin Layer Chromatography (TLC), Accelerated Solvent Extraction (ASE) . The course will include sample preparation methods to detect environmental contaminants at known and unknown concentrations invarious media (soil, water, and air). This will include laboratory and homework assignments to assess student understanding of course material.

0101	Candice Duncan	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	PLS 1164

ENST499X **Special Topics in Environmental Science and Technology; Soil Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

Contact department for information to regsiter for this course.

0101	Raymond Weil	Seats (Total: 5)
	Contact instructor or department for details.	

ENST499Y **Special Topics in Environmental Science and Technology; College Teaching**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study, and/or lecture, and/or laboratory series organized to study a selected phase of Environmental Science and Technology not covered by existing courses. Credit arranged with supervising faculty member.

0101	Raymond Weil	Seats (Total: 2)
	Contact instructor or department for details.	
1201	Andrew Baldwin	Seats (Total: 2)
	Contact instructor or department for details.	
1508	Reginal Harrell	Seats (Total: 2)
	Contact instructor or department for details.	

2104	Shannon Browne Contact instructor or department for details.	Seats (Total: 2)	
2106	Eni Baballari Contact instructor or department for details.	Seats (Total: 2)	
2804	Jose-Luis Izursa Contact instructor or department for details.	Seats (Total: 2)	
3201	Peter May Contact instructor or department for details.	Seats (Total: 2)	

ENST602 **Research Principles and Methodology in Environmental Scienceand Technolgy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Environmental Sci & Tech program.

Fundamental research strategies and methods of investigation in Environmental Science and Technology including field and laboratory procedures.

0101	Jennifer Mullinax TuTh 11:00am - 12:15pm	Seats (Total: 15) ANS 1422	

ENST603 **Advanced Invasive Species Ecology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Jointly offered with ENST403. Credit only granted for: ENST403, ENST603 , or ENST689R. Formerly: ENST689R. Additional information: Two field trips are planned for this class.

We will examine ecological, evolutionary, and anthropogenic processes facilitating or resisting biological invasions, and consider their environmental, economic, and human health impacts. We will consider various management strategies to mitigate invasions and identify areas of future research. Field trips and detailed discussion of recent findings and controversies in the literature will help illustrate fundamental concepts of invasions among various ecosystems.

0101	Paul Leisnham MWF 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 10) ANS 1422 ANS 1422	 Discussion

ENST606 **Advanced Ecosystem Health and Natural Resource Management**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of AGNR-Environmental Science & Technology department. Credit only granted for: ENST606 or ENST689E. Formerly: ENST689E. Additional information: Priority in enrollment will be given to students in ENST program.

Explore some of the most important and current global environmental and health challenges. Investigate fundamental and new concepts from the fields of ecology, eco-epidemiology, social anthropology, and environmental and health policy, as well as interdisciplinary cross-sectorial approaches such as One Health, Eco-Health, and Planetary Health.

0101	Paul Leisnham	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	ANS 1420

ENST608 **Research Methods**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Development of research viewpoint by detailed study and report on crop and soil research of the Maryland Agriculture Experiment Station or review and discussion of literature on specific agricultural problems or new research techniques.

Contact department for information to register for this course.

ENST611 **Advanced Principles of Soil Fertility**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: ENST200; or students who have taken courses with comparable content may contact the department. Jointly offered with ENS T411. Credit only granted for: ENST411, NRSC411, or ENST611.

Soil factors affecting plant growth and quality with emphasis on the bio-availability of mineral nutrients. The management of soil systems to enhance plant growth by means of crop rotations, microbial activities, and use of organic and inorganic amendments.

0101	Raymond Weil	Seats (Total: 10)
	TuTh 12:30pm - 1:45pm	ANS 1422

ENST650 **Advanced Wetland Ecology**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: BIOM301; and ENST360 or other ecology equivalent; or permission of AGNR-Environmental Science and Technology department; or permission of CMNS-Marine & Estuarine-Environmental Science Program). Cross-listed with: MEES650. Jointly offered with: ENST450, MEES650. Credit only granted for: ENST450, ENST650, or MEES650. Additional information: Wading boots (at least hip length) are strongly recommended.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips (normally 2 days total during the semester) and in-class labs. Hands-on activities and exercises include identification of wetland plant species, wetland mapping and delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin TuTh 2:00pm - 3:15pm	Seats (Total: 5) ANS 0538

ENST689 **Special Topics**

Credits: 1-3 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

1201	Andrew Baldwin Contact instructor or department for details.	Seats (Total: 5)
1205	William Bowerman Contact instructor or department for details.	Seats (Total: 5)
1401	Frank Coale Contact instructor or department for details.	Seats (Total: 5)
1501	Gary Felton Contact instructor or department for details.	Seats (Total: 5)
1508	Reginal Harrell Contact instructor or department for details.	Seats (Total: 5)
1601	Robert Hill Contact instructor or department for details.	Seats (Total: 5)
1801	Patrick Kangas Contact instructor or department for details.	Seats (Total: 5)
1802	Stephanie Lansing Contact instructor or department for details.	Seats (Total: 5)
1803	Paul Leisnham Contact instructor or department for details.	Seats (Total: 5)
1805	Michael Kearney Contact instructor or department for details.	Seats (Total: 5)
2001	Bahram Momen Contact instructor or department for details.	Seats (Total: 5)
2005	Jennifer Mullinax Contact instructor or department for details.	Seats (Total: 5)

2101	Brian Needelman Contact instructor or department for details.	Seats (Total: 5)
2102	Masoud Negahban-Azar Contact instructor or department for details.	Seats (Total: 5)
2103	Mitchell Pavao-Zuckerman Contact instructor or department for details.	Seats (Total: 5)
2105	Wendy Peer Contact instructor or department for details.	Seats (Total: 5)
2201	Martin Rabenhorst Contact instructor or department for details.	Seats (Total: 3)
2601	David Tilley Contact instructor or department for details.	Seats (Total: 5)
2701	Raymond Weil Contact instructor or department for details.	Seats (Total: 5)
2805	Gurpal Toor Contact instructor or department for details.	Seats (Total: 5)
2905	Stephanie Yarwood Contact instructor or department for details.	Seats (Total: 5)
3001	Lance Yonkos Contact instructor or department for details.	Seats (Total: 2)
3401	Jared Wilmoth Contact instructor or department for details.	Seats (Total: 5)

ENST689M **Special Topics; Advanced Soil Chemistry**

Credits: 1-3 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Jared Wilmoth TuTh 2:00pm - 3:15pm	Seats (Total: 10) EGR 1110

ENST689O **Special Topics; Advances in Research, Invasive Plants**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Wendy Peer M 11:00am - 11:50am	Seats (Total: 20) ANS 1422

ENST689Q **Special Topics; Applied Spatial Data Analysis for Environmental Science and Technology**

Credits: 2 Grading Method: Regular

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Restricted to ENST Graduate Students only; or Permission of Instructor. Teaches ENST graduate students applied spatial analysis skills through several case studies, including such topics as combining disparate spatial data sources, identifying spatial characteristics of specific field sites, identifying landscape change over time, and spatial techniques used to identify similarities or model relationships. Students will need to provide a 10GB (or larger) thumb drive for data storage.

0101	Jennifer Mullinax W 1:00pm - 3:00pm	Seats (Total: 10) ANS 0501

ENST689W **Special Topics; Taxonomy and Ecology of Wetland Plants**

Credits: 2 Grading Method: Regular

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Identification and ecology of major groups of wetland plants. Class meetings will include lecture, discussion, and laboratory learning. Students will collect plants outside of class for lab identification and creating a plant collection. Discussions will center on plant ecology literature relevant to wetlands in the context of restoration, global change, and other topics of interest to students.

0101	Andrew Baldwin Th 3:30pm - 5:30pm	Seats (Total: 10) ANS 0422

ENST689X **Special Topics; Methods in University Teaching**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Raymond Weil Contact instructor or department for details.	Seats (Total: 1)

ENST689Y **Special Topics; Advances in Research, Plant Membrane Biology**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

0101	Wendy Peer	Seats (Total: 10)
	Contact instructor or department for details.	

ENST689Z **Special Topics; Introductory University Instruction**

Credits: 1-3 Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

2905	Stephanie Yarwood	Seats (Total: 1)
	Contact instructor or department for details.	

ENST789 **Advances in Research**

Credits: 1-4 Grading Method: Regular, Audit

A study of recent advances in agronomy research.

Contact department for information to register for this course.

ENST798 **Graduate Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Designed to provide a venue for interactive discussion between ENST graduate students and other members of the ENST community regarding thesis/dissertation research planned or conducted as part of the students graduate program.

Restriction: Must be in one of the following programs (Environmental Science and Technology (Doctoral); Environmental Science and Technology (Master's)); or permission of AGNR-Environmental Science & Technology department.

0101	Jared Wilmoth, Martin Rabenhorst	Seats (Total: 40)
	W 12:00pm - 12:50pm	ANS 0408

ENST799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM Entomology Fall 2022

ENTM699K **Advanced Entomology; Biological Sciences Teaching and Learning in Higher Education**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Credit and prerequisites to be determined by the department. First and second semesters. Studies of minor problems in morphology, physiology, taxonomy and applied entomology, with particular reference to the preparation of the student for individual research.

Cross-listed with BIOL608K, CBMG699K, and CHEM608K. Credit will be grant edfor only one of the following: BIOL608K, CBMG699K, CHEM608K, or ENTM699K.

0101	Gili Ad-Marbach	Seats (Total: 12)
	W 11:00am - 12:40pm	BPS 1208

ENTM701 **Teaching & Professional Development in Biology**

(Perm req)

Credits: 1 Grading Method: Regular

Cross-listed with: BISI701. Credit only granted for: ENTM701, BISI688Z, CBMG688Z, or BIOL701. Formerly: BISI688Z, CBMG688Z, BIOL701. Additional information: Priority in enrollment will be given to students in the BISI Graduate Program.

Provides graduate students in the biological sciences with the foundational knowledge to become better teaching assistants and gives them an introduction into the skills and tools that they need to develop as professional scientists and educators.

0101	Leslie Pick	Seats (Total: 20)
	Tu 6:00pm - 8:00pm	PLS 1146

ENTM710 **Insect Biodiversity, Physiology and Ecology**

Credits: 3 Grading Method: Regular

A survey course discussing the various families of insects, discuss thing their anatomy and physiology, and their role in ecological systems. Students will examine the ecological and evolutionary perspectives on interactions between plants and vertebrate and invertebrate animals. Further, it explores the applied consequences of animal-plant interactions to agroecology and conservation biology. These goals are achieved by reviewing the theoretical underpinnings of animal-plant interactions, and exposing students to research literature on animal-plant interactions.

Restricted to Applied Entomology students. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.

Click here for program information.

PLE1	Tammatha O'Brien	Seats (Total: 8)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM745 **Bee Biology and Beekeeping**

Credits: 3 Grading Method: Regular

Students will be introduced to the anatomy and physiology of the honey bee colony with emphasis on how to use this information to best manage honey bee colonies.

Restricted to Applied Entomology students. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.

Click here for program information.

PLE1	Anthony Nearman	Seats (Total: 8)
	Meets August 29, 2022 - November 18, 2022	
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.	

ENTM756 **Insect Diseases and Pathology**

Credits: 3 Grading Method: Regular

Credit only granted for: ENTM715 or ENTM756. Formerly: ENTM715.

Integrates aspects of biochemistry, molecular biology and evolution theory with ecology using pathogens of insects as a model. The various biotic (living) and abiotic (nonliving) factors that can contribute to plant problems. Explores the direction and goals of innovation in microbial biocontrol as well as the effect of social criticism and considerations of environmental impact on attempts to introduce engineered microorganisms.

Restricted to Applied Entomology students. For permission to enroll, must be admitted into a term-based calendar graduate program. Contact oes@umd.edu.

Click here for program information.

PLE1	Huiyu Sheng	Seats (Total: 8)	
	Meets August 29, 2022 - November 18, 2022		
	Class time/details on ELMs	ONLINE	
	Must be in Graduate Programs in Applied Entomology. All other graduate students must request permission. Contact oes@umd.edu.		

ENTM788C **Entomological Topics; Colloquium**

Credits: 1-3 Grading Method: Regular, Audit

One lecture or one two-hour laboratory period a week for each credit hour. Lectures, group discussions or laboratory sessions on selected topics such as: aquatic insects, biological control of insects, entomological literature, forest entomology, history of entomology, insect biochemistry, insect embryology, immature insects, insect behavior, insect communication, principles of entomological research.

0101	Jeffrey Shultz	Seats (Total: 45)	
	F 12:00pm - 12:50pm	PLS 1130	
	F 1:00pm - 1:50pm	PLS 1130	Discussion

ENTM798E **Topic Seminar; Professional Development for Life Scientists**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Discussion and presentation of current research and literature.

0101	Kelly Hamby, Anahi Espindola	Seats (Total: 20)
	Tu 3:30pm - 4:20pm	PLS 1172

ENTM798K **Topic Seminar; Challenges and Prospects for Sustainability in Agriculture**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Discussion and presentation of current research and literature.

Restriction: Must be in ENTM grad program; or permission of the instructor.

0101	Bill Lamp	Seats (Total: 12)
	Contact instructor or department for details.	

ENTM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

ENTM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ENTS Telecommunications Fall 2022

ENTS622 **Introduction to Digital Communication Systems**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Telecommunications (Master's) program; or permission of ENGR-Electrical & Computer Engineering department. Credit only granted for: ENTS622 or ENTS689B. Formerly: ENTS689B.

Principles of analog and digital communication systems design. Analysis of the performance and relative merits of different modulation and demodulation, signal processing, filtering and error control schemes in communication systems. Also provides an understanding of the design of modern digital communication systems.

0101	Alejandra Mercado M 5:30pm - 8:15pm Tu 5:30pm - 7:00pm Tu 7:00pm - 8:15pm	Seats (Total: 16) ITV 1111 AVW 1362 AVW 1458	 Lab Discussion
0102	Alejandra Mercado M 5:30pm - 8:15pm Tu 9:00am - 10:30am Tu 10:30am - 11:45am	Seats (Total: 16) ITV 1111 AVW 1362 AVW 1458	 Lab Discussion

ENTS630 **The Economics of International Telecommunications**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Telecommunications (Master's) program.

Basic microeconomic principles used by telecommunications firms, including supply and demand, elasticity, costs, productivity, pricing, market structure and competitive implications of alternative market structures. Market failures and government intervention. Public policy processes affecting business operations.

Restricted to ENTS majors. All non-major students will need to obtain department permission.

0101	Michael Geppi M 5:30pm - 8:15pm	Seats (Total: 40) SQH 1101	

ENTS635 **Decision Support Methods for Telecommunication Managers**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Telecommunications (Master's) program.

The aim of this course is to introduce management science techniques for informed decision making. Topics covered can include data analysis and regression, optimization models and applications (workforce scheduling, manufacturing, network design, facility location), sensitivity analysis, decision trees, risk analysis and business simulation models. Emphasis will be on telecommunications managerial problems, model development and the use of software packages for decision support.

Restricted to ENTS majors. All non-major students will need to obtain department permission. Click here for more course information.

0101	Kazim Ruhi	Seats (Total: 40)	
	W 2:00pm - 4:45pm	TYD 2106	

ENTS640 Networks and Protocols I

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Telecommunications (Master's) program.

An overview of design issues and the important industry standards for digital communications networks. This includes protocols, data communications technologies, error correction and detection, congestion control, traffic routing, Local Area Network (LAN) protocols, TCP/IP, and some security issues.

0101	Zoltan Safar	Seats (Total: 24)	
	Th 5:30pm - 8:15pm	ITV 1111	
	W 5:30pm - 8:15pm	AVW 1442	Lab

ENTS656 Introduction to Cellular Communication Networks

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Concepts and techniques involved in wireless digital communications with emphasis on cellular and PCS systems. Properties of Mobile radio channels; intersymbol interference, multipath, and fading effects; interleaving and diversity; multiple access schemes (TDMA, FDMA, CDMA); interuser interference, traffic issues, and cell capacity; power control strategies; frequency reuse and channel assignment; handoff, paging, and location update; cell layout; introduction to cellular and PCS standards.

Click here for more course information.

0101	Michael Dellomo	Seats (Total: 24)	
	Tu 5:30pm - 8:15pm	CHE 2136	
	M 9:00am - 11:45am	AVW 1458	Lab

ENTS657 **Satellite Communication Systems**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: ENTS657 or ENTS689S. Formerly: ENTS689S.

An examination of satellite telecommunication systems with an emphasis on the mobile satellite systems (MSS). Topics will include a historical perspective, orbital mechanics and constellations, choice of orbital parameters, propagations considerations, link budgets, interference issues and other obstacles, and existing and proposed mobile satellite systems. It will also look at some of the business aspects such as the cost of deploying and maintaining these systems.

0101	Michael Dellomo W 5:30pm - 8:15pm	Seats (Total: 30) EGR 1104

ENTS669B **Special Topics in Computing; Distributed Systems in a Virtual Environment**

Credits: 3 Grading Method: Regular, Audit

Selected topics of current importance in computing.

Please click here for more course information.

0101	Jeffrey McKinney Tu 5:30pm - 8:15pm	Seats (Total: 18) AVW 1442

ENTS699M **Independent Study in Telecommunications; Python Programming**

Credits: 1 Grading Method: Regular, Audit

Individual instruction course. See ENTS program office for section number.

0101	Michael Dellomo Contact instructor or department for details.	Seats (Total: 10)

ENTS759D **Advanced Topics in Communications; Distributed Antenna Systems (DAS) and Small Cells**

Credits: 3 Grading Method: Regular, Audit

Selected advanced topics in communications.

Prerequisites: ENTS656 or ENTS653.

0101	Rikin Thakker F 5:30pm - 8:15pm	Seats (Total: 30) EGR 1104

ENTS759I **Advanced Topics in Communications; Selected Topics in 5G System Design and Evolution**

Credits: 3 Grading Method: Regular

Selected advanced topics in communications.

0101	Kamran Etemad M 10:00am - 12:45pm	Seats (Total: 24) AJC 2134	

EPIB Epidemiology and Biostatistics Fall 2022

EPIB301 **Epidemiology for Public Health Practice**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with: HLTH301. Credit only granted for: EPIB301 or HLTH301.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

As agreed to during the change of major workshop or orientation to PHSC: PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. PHSC students who declared their major DURING the spring 2018 semester and later, are required to take EPIB301 before EPIB315.

0101	Typhanye Dyer TuTh 3:30pm - 4:20pm M 9:00am - 9:50am *Restricted to Public Health Science majors at College Park.*	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
0102	Typhanye Dyer TuTh 3:30pm - 4:20pm M 10:00am - 10:50am *Restricted to Public Health Science majors at College Park.*	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
0103	Typhanye Dyer TuTh 3:30pm - 4:20pm M 11:00am - 11:50am *Restricted to Public Health Science majors at College Park.*	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
0104	Typhanye Dyer TuTh 3:30pm - 4:20pm M 12:00pm - 12:50pm *Restricted to Public Health Science majors at College Park.*	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion

0105	Typhanye Dyer TuTh 3:30pm - 4:20pm M 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0106	Typhanye Dyer TuTh 3:30pm - 4:20pm M 2:00pm - 2:50pm	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0107	Typhanye Dyer TuTh 3:30pm - 4:20pm M 3:00pm - 3:50pm	Seats (Total: 23) ESJ 0224 ATL 1434	Discussion
	Restricted to Public Health Science majors at College Park.		
0108	Typhanye Dyer TuTh 3:30pm - 4:20pm M 11:00am - 11:50am	Seats (Total: 23) ESJ 0224 SPH 0303	Discussion
	Restricted to Public Health Science majors at College Park.		
0109	Typhanye Dyer TuTh 3:30pm - 4:20pm M 1:00pm - 1:50pm	Seats (Total: 23) ESJ 0224 SPH 0303	Discussion
	Restricted to Public Health Science majors at College Park.		
0201	Typhanye Dyer TuTh 3:30pm - 4:20pm M 9:00am - 9:50am	Seats (Total: 20) ESJ 0224 SPH 0307	Discussion
	Restricted to College Park students in the Behavioral and Community Health major.		
0202	Typhanye Dyer TuTh 3:30pm - 4:20pm W 1:00pm - 1:50pm	Seats (Total: 20) ESJ 0224 SPH 0307	Discussion
	Restricted to College Park students in the Behavioral and Community Health major.		

EPIB301H **Epidemiology for Public Health Practice**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Public Health Science program; or must be in Community Health program. And must have earned a minimum of 45 credits. Cross-listed with: HLTH301. Credit only granted for: EPIB301 or HLTH301.

An examination of the discipline of epidemiology and its application to public health issues and practices, covering current epidemiological concepts and methods.

0201	Typhanye Dyer TuTh 3:30pm - 4:20pm M 9:00am - 9:50am	Seats (Total: 3) ESJ 0224 SPH 0307	Discussion
0202	Typhanye Dyer TuTh 3:30pm - 4:20pm W 1:00pm - 1:50pm	Seats (Total: 3) ESJ 0224 SPH 0307	Discussion

EPIB315 **Biostatistics for Public Health Practice**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: FSAR

Prerequisite: Minimum grade of C- in EPIB301; or must have completed or be concurrently enrolled in HLTH200. Restriction: Must be in one of the following programs (Public Health Science; Community Health). Cross-listed with: HLTH300. Credit only granted for: EPIB300, EPIB315 or HLTH300. Formerly: EPIB300. Additional information: Course is cross-listed; students should check program advising information to determine which counts for their major. Note that EPIB300 (old number) is still offered for students under previous curriculum.

An examination of biostatistical concepts and procedures as they relate to contemporary issues in public health. Focus on applications, hands-on-experience, and interpretations of statistical findings in public health research.

As agreed to during the change of major workshop or orientation to PHSC: PHSC students who declared their major BEFORE the spring 2018 semester are required to take EPIB300 before EPIB301. PHSC students who declared their major DURING the spring 2018 semester and later, are required to take EPIB301 before EPIB315.

0101	Yan Li TuTh 11:00am - 11:50am M 8:00am - 9:50am *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 20) ARM 0131 SPH 0116B	Discussion
0102	Yan Li TuTh 11:00am - 11:50am M 10:00am - 11:50am *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 20) ARM 0131 SPH 0116B	Discussion

0103	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 12:00pm - 1:50pm	ARM 0131 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am M 2:00pm - 3:50pm	ARM 0131 SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 8:00am - 9:50am	ARM 0131 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 10:00am - 11:50am	ARM 0131 SPH 0121	Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	ARM 0131 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Yan Li	Seats (Total: 20)	
	TuTh 11:00am - 11:50am F 2:00pm - 3:50pm	ARM 0131 SPH 0303	Discussion
	Restricted to College Park students in the Public Health Science major.		
0201	Yan Li	Seats (Total: 30)	
	TuTh 11:00am - 11:50am Th 4:00pm - 5:50pm	ARM 0131 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		
0202	Yan Li	Seats (Total: 30)	
	TuTh 11:00am - 11:50am F 12:00pm - 1:50pm	ARM 0131 SPH 0121	Discussion
	Restricted to students in the Behavioral and Community Health major.		

ESG1	Lauren Kauffman	Seats (Total: 35)	
	M 9:00am - 11:30am Class time/details on ELMs	BLD3 4219 ONLINE	Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

EPIB399 **Epidemiology and Biostatistics Independent Study**

Credits: 1-3 Grading Method: Regular

The EPIB undergraduate independent study is an opportunity for undergraduates from other departments in the SPH or the university to work with an Epidemiology and Biostatistics faculty member on research or special projects that are based out of EPIB.

Contact department for information to register for this course.

EPIB463 **Introduction to Biostatistical Programming**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to basic programming principles; data analysis tasks such as the calculation of summary statistics and the creation of graphs; and the implementation of statistical analysis concepts such as T-tests, ANOVA and correlation. Querying and managing data sets using SQL in SAS will also be covered.

0101	Steven Tartakovsky	Seats (Total: 25)	
	TuTh 12:30pm - 1:45pm	ONLINE	
	Restricted to PHSC students at College Park campus.		

EPIB612 **Epidemiologic Study Design**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EPIB611.

Application of epidemiologic study designs, analytic methods used for analysis of cohort, case-control, cross-sectional, and clinical trials research.

0101	Hongjie Liu	Seats (Total: 20)	
	M 4:00pm - 6:45pm	ATL 1434	

EPIB633 **Health Survey Design and Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SPHL602 or EPIB610; or permission of Instructor. Recommended: EPIB697.

An overview of types of survey research designs, questionnaire design, measurement issues, and techniques for recruiting and interacting with participants. Students will discuss and implement a variety of health survey analysis techniques, including how to utilize SAS statistical software to estimate descriptive statistics and implement regression models, while accounting for complex survey designs.

0101	Quynh Nguyen	Seats (Total: 25)
	W 1:00pm - 3:45pm	ATL 1434

EPIB651 **Applied Regression Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of B- from (SPHL602, EPIB650); or a minimum score of 70% on the SPHL602 or EPIB650 waiver exam. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

An introduction to important statistical methods used in public health research, including nonparametric hypothesis testing, ANOVA, simple and multiple linear regression, logistic regression, and categorical data analysis.

0101	Mei-Ling Lee	Seats (Total: 20)
	Th 1:00pm - 3:45pm	SPH 0121

EPIB652 **Categorical Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EPIB651. Recommended: EPIB697 or previous experience working with SAS is highly recommended.

Methods for analysis of categorical data as applied to public health research, including contingency tables, logistic regression, multicategory logic models, loglinear models, and models for matched-pairs.

0101	Tianzhou Ma	Seats (Total: 20)
	W 4:15pm - 7:00pm	ATL 1434

EPIB655 **Longitudinal Data Analysis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EPIB651.

Statistical models for drawing scientific inferences from longitudinal data, longitudinal study design, repeated measures and random effects to account for experimental designs that involve correlated responses, handling of missing data.

0101	Xin He	Seats (Total: 20)
	Tu 1:00pm - 3:45pm	ATL 1434

EPIB697 **Public Health Data Management**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Permission of instructor.

This course is designed to provide students with the expertise needed to effectively manage research data using SAS as the statistical programming language.

0101	Raul Cruz-Cano	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

EPIB778 **Internship in Public Health**

(Perm req)

Credits: 1-4 Grading Method: Regular

Practice experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

Contact department for information to register for this course.

EPIB786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Epidemiology & Biostatistics department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

EPIB788 **Critical Readings in Epidemiology and Biostatistics**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Open to master and doctoral students to discuss critical readings in Epidemiology and Biostatistics.

0101	Typhanye Dyer	Seats (Total: 15)
	W 10:00am - 12:00pm	ATL 1425

EPIB798 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

EPIB799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

EPIB898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

EPIB899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FGSM Federal and Global Fellows Fall 2022

FGSM310 **Political Engagement and Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH318T. Credit only granted for: HNUH318T or FGSM310.

An examination of questions and issues in the practice of political engagement and advocacy. Guest lecturers drawn from political, civic engagement, and advocacy arenas will visit class and participate in discussions.

0101	Dale Crowell	Seats (Total: 23)
	M 6:00pm - 9:00pm	ESJ B0322

FGSM320 **Public Health Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH328T. Credit only granted for: UNIV348P, HNUH328T or FGSM320. Formerly: UNIV348P.

An exploration of the major questions and issues facing the U.S. health care system as well as the formulation and implementation of health policy.

0101	Samuel Kessel	Seats (Total: 25)
	Tu 3:30pm - 6:30pm	ESJ 1309

FGSM330 **Homeland and National Security Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH338T. Credit only granted for: UNIV348T, HNUH338T or FGSM330. Formerly: UNIV348T.

An examination of the concept of U.S. homeland and national security, threats, and major vulnerabilities in the context of recent history.

0101	Andrew Fausett, Casie Antalis	Seats (Total: 21)
	M 6:00pm - 9:00pm	AJC 2119

FGSM340 **Energy and Environmental Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: HNUH348T. Credit only granted for: UNIV348E, HNUH348T or FGSM340. Formerly: UNIV348E.

An examination of issues of energy and environmental sustainability through an investigation of policy-making in energy, climate change, and sustainable development.

0101	Ed Fendley	Seats (Total: 23)
	M 3:30pm - 6:30pm	AJC 2121

FGSM350 **Critical Regions and International Relations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH358T. Credit only granted for: HNUH358T or FGSM350.

An examination of international relations and foreign policy challenges in critical regions.

0101	Eric Ciaramella, Danusia Hubah	Seats (Total: 21)
	Th 7:00pm - 10:00pm	AJC 2119

FGSM355 **International Security and Intelligence**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and Permission of Department. Cross-listed with: HNUH359T.

An examination of questions and issues in the practice of international security and intelligence. Guest lecturers drawn from Washington intelligence and security communities will also visit class and participate in discussion.

Credits granted for FGSM355 or HNUH359T.

0101	Paul Maykish, William Usher	Seats (Total: 20)
	Th 7:00pm - 10:00pm	ESJ 1309

FGSM360 **U.S. Diplomacy and Policymaking**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH368T. Credit only granted for: HNIUH368T or FGSM360.

An examination of questions and issues in the practice of contemporary diplomacy and policy-making. Guest lecturers drawn from Washington policy-making and foreign service communities will visit class and participate in discussion.

0101	Nadia Farra	Seats (Total: 21)
	Tu 6:30pm - 9:30pm	ESJ 1309

FGSM370 **Science Diplomacy: Foreign Policy & Science, Technology, and Innovation**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH378T. Credit only granted for: UNIV389F, HNUH378T or FGSM370. Formerly: UNIV389F.

An exploration of the critical roles scientific knowledge and technological innovation play in the formation and implementation of foreign policy issues, including energy and climate change, public health, space and innovation, and economic development.

0101	Jeffrey Haeni, Jonathan Margolis	Seats (Total: 20)
	W 5:30pm - 8:30pm	ESJ 1309

FGSM380 **Responses to Global Challenges**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH388T. Credit only granted for: UNIV389B, HNUH388T or FGSM380. Formerly: UNIV389B.

An examination of global issues and responses primarily from the perspective of the practitioner. The focus will be on social, humanitarian, and human rights issues in different global contexts.

0101	Rhoda Margesson	Seats (Total: 20)
	W 5:30pm - 8:30pm	AJC 2134

FGSM390 **Water Security and Global Health Challenges**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: HNUH398T. Credit only granted for: HNUH398T, HONR378M, or FGSM390.

An examination of questions and issues of global health and water security. Expert practitioners will also visit class and participate in discussions.

0101	Jonathan Margolis, Julien Katchinoff	Seats (Total: 20)
	W 3:00pm - 6:00pm	PHY 2208

FGSM398 **Federal and Global Experiential Learning**

(Perm req)

Credits: 3-9 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

Cross-listed with HNUH398P. Credit only granted for FGSM398 or HNUH398P.

0101	Naz Beyranvand, Joan Burton, Jayakumar Arasan	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

FIRE First-Year Innovation & Research Experience Fall 2022

FIRE120 **FIRE SEMESTER 1**

Credits: 3 Grading Method: Regular General Education: DSSP

Additional information: This is the first course in the FIRE (First-Year Innovation & Research Experience) program sequence.

Engages the research process through the design, research, collaborative authorship and iterative review-based refinement of research proposals. Students find and analyze primary literature, think creatively, author and communicate research proposals in a scholarly fashion and work collaboratively to solve scientific and societal problems using technology, delegation and productive team communication.

0101	Catherine Spirito	Seats (Total: 40)
	M 12:00pm - 12:50pm Contact instructor or department for details.	ATL 2339
	This section is restricted to BioFIRE students.	
0102	Carolina Vieira	Seats (Total: 40)
	M 1:00pm - 1:50pm Contact instructor or department for details.	ATL 2339
	This section is restricted to BioFIRE students.	

0103	Jessica O'Hara M 11:00am - 11:50am Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339
0104	Danielle Niu F 1:00pm - 1:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339
0105	Quira Zeidan F 12:00pm - 12:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339
0106	Cherisse Hall F 9:00am - 9:50am Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339
0107	Halli Weiner M 2:00pm - 2:50pm Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339
0108	Laura Drew M 3:00pm - 3:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 40) ATL 2339
0109	Sharon Colvin Tu 9:30am - 10:20am Class time/details on ELMs *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 40) ONLINE ONLINE
0110	Danielle Niu F 11:00am - 11:50am Contact instructor or department for details. *This section is hosted by the FIRE Natural Science cluster.*	Seats (Total: 40) ATL 2339

0111	Benjamin Huffman F 2:00pm - 2:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 40) ATL 2339
0112	Marissa Hartwig M 4:00pm - 4:50pm Contact instructor or department for details. *This section is hosted by the FIRE Social Science cluster.*	Seats (Total: 40) ATL 2339
0113	Shabnam Jabeen W 9:00am - 9:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 40) ATL 2339
0114	Raymond H Tu F 10:00am - 10:50am Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 40) ATL 2339
0115	Thanicha Ruangmas F 3:00pm - 3:50pm Contact instructor or department for details. *This section is hosted by the FIRE Technology & Applied Science cluster.*	Seats (Total: 40) ATL 2339
FC01	Thanicha Ruangmas W 5:00pm - 5:50pm Contact instructor or department for details.	Seats (Total: 38) ATL 2339

FIRE298 FIRE Semester 3

Credits: 3 Grading Method: Regular General Education: DSSP

Capstone course in the FIRE (First-Year Innovation & Research Experience) program sequence. Students in this course transition from trainee to practitioner in their lab. This course focuses on the concepts related to the process of independent research including collaboration with peers, communication of ideas, troubleshooting unexpected outcomes, and discipline-specific methodologies.

0101	Catherine Spirito Th 3:30pm - 4:20pm Contact instructor or department for details. *Molecular Diagnostics.*	Seats (Total: 36) ATL 2339

0102	Carolina Vieira W 12:00pm - 12:50pm Contact instructor or department for details. *Found in Translation.*	Seats (Total: 28) ATL 2339
0103	Cherisse Hall Th 2:00pm - 2:50pm Contact instructor or department for details. *Bacterial Pathogenesis.*	Seats (Total: 36) ATL 2339
0104	Jessica O'Hara W 11:00am - 11:50am Contact instructor or department for details. *Host-Pathogen Interactions.*	Seats (Total: 36) ATL 2339
0105	Quira Zeidan W 10:00am - 10:50am Contact instructor or department for details. *CellEx.*	Seats (Total: 36) ATL 2339
0106	Halli Weiner Th 12:30pm - 1:20pm Contact instructor or department for details. *Fertility Science.*	Seats (Total: 36) ATL 2339
0201	Thanicha Ruangmas Tu 11:00am - 11:50am Contact instructor or department for details. *Sustainability Analytics.*	Seats (Total: 36) ATL 2339
0202	Laura Drew Tu 12:30pm - 1:20pm Contact instructor or department for details. *Global Health & Human Rights.*	Seats (Total: 36) ATL 2339
0203	Cristina Risco W 3:00pm - 3:50pm Contact instructor or department for details. *Addiction Science.*	Seats (Total: 36) ATL 2339

0204	Sharon Colvin Th 11:00am - 11:50am Class time/details on ELMs *Identity Science.*	Seats (Total: 36) ONLINE ONLINE
0205	Benjamin Huffman Th 9:30am - 10:20am Contact instructor or department for details. *Global Development & Design.*	Seats (Total: 36) ATL 2339
0206	Marissa Hartwig Tu 9:30am - 10:20am Contact instructor or department for details. *Human Learning, Memory & Cognition.*	Seats (Total: 15) ATL 2339
0301	Shabnam Jabeen Tu 3:30pm - 4:20pm Contact instructor or department for details. *Quantum Machine Learning.*	Seats (Total: 40) ATL 2339
0302	Danielle Niu W 4:00pm - 4:50pm Contact instructor or department for details. *Project Greenhouse.*	Seats (Total: 36) ATL 2339
0303	Raymond H Tu W 2:00pm - 2:50pm Contact instructor or department for details. *Capital One Machine Learning.*	Seats (Total: 40) ATL 2339
0304	Shabnam Jabeen Tu 2:00pm - 2:50pm Contact instructor or department for details. *Quantum Machine Learning.*	Seats (Total: 40) ATL 2339
0305	Alexandra Jones W 1:00pm - 1:50pm Contact instructor or department for details. *Cloud Computing.*	Seats (Total: 28) ATL 2339

FIRE398 FIRE Research Leadership

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Earn academic credit for the time spent supporting, mentoring, and leading students in FIRE Research streams.

0101	Catherine Spirito Contact instructor or department for details.	Seats (Total: 15)
0102	Carolina Vieira Contact instructor or department for details.	Seats (Total: 15)
0103	Cherisse Hall Contact instructor or department for details.	Seats (Total: 15)
0104	Jessica O'Hara Contact instructor or department for details.	Seats (Total: 15)
0105	Quira Zeidan Contact instructor or department for details.	Seats (Total: 15)
0106	Halli Weiner Contact instructor or department for details.	Seats (Total: 15)
0201	Thanicha Ruangmas Contact instructor or department for details.	Seats (Total: 15)
0202	Laura Drew Contact instructor or department for details.	Seats (Total: 15)
0203	Cristina Risco Contact instructor or department for details.	Seats (Total: 15)
0204	Sharon Colvin Contact instructor or department for details.	Seats (Total: 15)
0205	Benjamin Huffman Contact instructor or department for details.	Seats (Total: 15)
0302	Danielle Niu Contact instructor or department for details.	Seats (Total: 15)
0303	Raymond H Tu Contact instructor or department for details.	Seats (Total: 15)

0304	Shabnam Jabeen Contact instructor or department for details.	Seats (Total: 15)
0305	Alexandra Jones Contact instructor or department for details.	Seats (Total: 15)

FMSC Family Science Fall 2022

FMSC110 **Families and Global Health**

Credits: 3 Grading Method: Regular General Education: DSHS, DVCC

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Sahra Ibrahimi TuTh 9:30am - 10:45am	Seats (Total: 40) SPH 0302

FMSC110S **Families and Global Health**

Credits: 3 Grading Method: Regular General Education: DSHS, DVCC

Students will explore, define, and study global health, social determinants of health, health inequalities, gender inequality, family violence, and maternal and child health using a global perspective.

0101	Elisabeth Maring TuTh 12:30pm - 1:45pm *Restricted to CPSP Global Public Health (CPGH) students.*	Seats (Total: 96) CCC 1100

FMSC123 **Personal Financial Literacy: From Distress to Success**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Exploring strategic thinking, career, education, financial planning during college years as the foundation for success in living a meaningful life. While introducing relevant institutions and tools & techniques that are critical for financial planning, this course applies value-based goal setting and strategic planning that inform individuals' paths for a successful career, educational attainment, and optimum (mental, physical and financial) wellbeing throughout their life cycle. The course particularly emphasizes the individual's responsibility of living in an institution rich society, where, continuous learning, understanding institutions, rational decision-making, valuing relationships and networking, early career development, record keeping, budgeting, generating income and wealth, purposeful spending, saving and investing, tax planning, appropriate use of loans, risk taking and insurance, and retirement planning are well rewarded and ensure the optimum use of college years and the rest of life-course.

0101	Manouchehr Mokhtari TuTh 5:30pm - 6:45pm	Seats (Total: 40) SPH 1302

FMSC170 **Modern Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: FMSC170 or FMSC298F. Formerly: FMSC298F.

Examination of current trends and controversial issues in family life, including issues of marriage, reproductive technologies, adoption, child custody, remarriage, and marital violence.

FC01	Tanner Kilpatrick TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 50) COL 3110

FMSC186 **Family Law and Ethics in Assisted Reproduction**

Credits: 1 | Grading Method: Regular, Pass-Fail

For students interested in studying the law, public health and/or family science, this course examines the cutting-edge law and ethics of assisted reproduction including the technologies of sperm and egg donation, in vitro fertilization, surrogacy, and reproductive organ transplants, and the impact on families.

FCW1	Kerry Tripp **Meets October 17, 2022 - December 12, 2022** Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 25) ONLINE

FMSC190 **Man Up! Where Are The Fathers?**

Credits: 3 | Grading Method: Regular | General Education: DSHS, SCIS

An examination of changing fatherhood roles, health, and inequality in diverse families. Focus will be on masculinities and disparities among men by race and class; provider role expectations; and trauma and violence faced by men in contemporary society.

0101	Kevin Roy MWF 11:00am - 11:50am	Seats (Total: 50) SPH 1303

FMSC260 **Couples, Marriage, and Families: Intimate Relationship Across the Life Course**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Covers the different aspects of couple relationships and family life. This includes common problems in couple relationships, and resources to strengthen couple and family relationships. You will also learn about stages of relationships, theories of love and family, policy related to couples and family formation, and how research is conducted with couples and families. Together, we will discuss and explore issues that couples and families face in modern times and will consider how many of these issues have changed due to policy, technology, attitudes, and a variety of other societal factors that impact relationships in the 21st century. You will also learn important methods of strengthening current and future relationships.

Restricted to Majors or non-majors with less than or equal to 60 credits.

0101	Zachary Berman	Seats (Total: 55)
	TuTh 12:30pm - 1:45pm	SKN 0104

FMSC270 **Sex, Drugs, and Social Media: Adolescent Health and Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course will ask: How can families, schools, communities, and society help adolescents to navigate contemporary stressors and develop into physically and mentally healthy adults? To do this, we will use research, and an understanding of adolescent development, to explore and analyze issues affecting the health and behavior of American adolescents. Such issues include (but are not limited to) sex education, the role of social media in mental health, substance use, policing in schools, dating violence, suicide prevention, access to sexual and reproductive health care, and school start times. We will consider how adolescent well-being is shaped by social contexts, including the role of parents and family members, peers, schools, communities, social media, and culture. We will examine policies and programs that affect adolescents, how effective they are at promoting adolescent health, and how they might be improved to better support healthy adolescent development.

0101	Amy Lewin	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 0101

FMSC286 **Assisted Reproduction Law and Policy in the US and Brazil**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: FMSC186 or FMSC286. Additional information: This is a global classroom course where students will learn online, meet once a week in a synchronous class on Webex with their Brazilian classmates, and work individually via Webex in small international groups.

In this Global Classroom, U.S. students will work synchronously online with their international partners in Brazil to critically think about cutting-edge ethical, legal, policy and scientific issues in the field of Assisted Reproduction Technologies (ART) in the two countries. This course looks at conventional families created in unconventional ways to examine such topics as sperm and egg donation, in vitro fertilization, surrogacy, reproductive organ transplants and more - while considering the social, cultural, racial, religious, economic, or socioeconomic contexts that influence each. Students will work with their foreign peers in small groups to compare ART in each country and then create proposed legislation for either the U.S. or Brazil which their international group will present online to their colleges and submit to the country's legislators. In so doing, students will be challenged to think critically and see their place in creating actionable change in a global society.

0101	Kerry Tripp	Seats (Total: 15)
	Tu 2:00pm - 3:15pm	ONLINE
	Class time/details on ELMs	ONLINE

FMSC290 **Family Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: FMSC290 or FMST290. Formerly: FMST290.

Application of economic methodology to study families under various economic situations. Examination of how decisions about marriage, divorce, fertility, consumption and time use are influenced by labor/housing markets, tax structure, social welfare benefits and other economic considerations.

Restricted to Majors or non-majors with less than or equal to 60 credits.

0101	Manouchehr Mokhtari	Seats (Total: 48)
	TuTh 4:00pm - 5:15pm	SPH 1302

FMSC302 **Research Methods in Family Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSSP

Prerequisite: Must have completed an introductory statistics course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC302 or FMST302. Formerly: FMST302.

Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

0101	Julie Donney	Seats (Total: 75)
	TuTh 9:30am - 10:45am	ESJ 2212

FMSC310 **Maternal, Child and Family Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Credit only granted for: FMSC310, FMSC410 or FMSC498A. Formerly: FMSC498A and FMSC410. Additional information: A comprehensive understanding of maternal, child, and family health, with additional emphasis on environmental health, needs assessment and evaluation, enabling students to more effectively address issues in the workplace.

Overview of the major issues in Maternal, Child, and Family Health in the U.S. and the world. The course will cover the social, political, environmental, and economic factors that shape the health of women, children, and families throughout the life course. It will employ the core disciplines of public health -- 1) epidemiology/biostatistics, 2) environmental health, 3) health policy and administration, and 4) social and behavioral health -- to examine these factors. The course introduces specific issues and interventions and places these issues and interventions within their broad sociohistorical context.

0101	Marie Thoma MWF 11:00am - 11:50am	Seats (Total: 48) SPH 1302
0201	Edmond Shenassa TuTh 11:00am - 12:15pm	Seats (Total: 48) SPH 0308
0401	Krystle McConnell TuTh 9:30am - 10:45am	Seats (Total: 48) SPH 0308
0501	Lindsay Mallick TuTh 12:30pm - 1:45pm	Seats (Total: 48) SPH 0308

FMSC330 Family Health: Health Happens in Families

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS, DVUP

Restriction: Junior standing or higher.

The objective of this gateway course is to help you understand and apply basic theories and empirical data on family health. The course is designed to provide you with skills to think critically about theories including: Life Course Theory, the Bio-Ecological and Social-Ecological Models, and Systems Theory. We will ask questions about the distinct qualities and intersections of contexts and characteristics that impact the functioning of families. We will apply theory and research to topical issues in family health that are impacted by social structures such as conflict, crisis, migration, incarceration and inequalities.

0101	Laura Golojuch Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 60) ONLINE SPH 1312
0201	Tanner Kilpatrick TuTh 12:30pm - 1:45pm	Seats (Total: 55) TWS 0320

FMSC332 Children in Families

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Prerequisite: PSYC100 or FMSC105. Credit only granted for: FMSC332 or FMST332. Formerly: FMST332.

A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

0101	Amy Lewin TuTh 11:00am - 12:15pm	Seats (Total: 65) SQH 1120
0201	Christine Schull Th 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 60) MCB 1207 ONLINE

FMSC340 Mental Health and Healing in Families

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Using an interdisciplinary approach to study mental health, mental wellness, and substance use, we will answer questions such as: How has our understanding and treatment of mental health changed throughout history? What are the current prevalence patterns and risk factors associated with mental health conditions? What is the prevention to postvention continuum? What is the role of relationships, families, and communities in addressing mental health? How do we diagnose and treat various mental health disorders using the best available research? And, what are the various mental health disciplines and how do they differ? This course is designed to examine mental health issues across the life course. We will explore the influence of social contexts, including racism and additional forms of othering, on mental health and wellness, and introduce the health systems that support mental health prevention and treatment.

0101	Amy Morgan TuTh 9:30am - 10:45am	Seats (Total: 35) ATL 1114

FMSC341 Personal and Family Finance

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: FMSC341 or FMST341. Formerly: FMST341.

Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

0101	Jesse Ketterman Tu 5:30pm - 6:45pm Class time/details on ELMs	Seats (Total: 45) ONLINE ONLINE

0201	William Knight Class time/details on ELMs	Seats (Total: 45) ONLINE

FMSC381 **Family Inequality**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit , D | General Education: DSHS, DVUP

Prerequisite: SOCY100 or SOCY105. Restriction: Must be in a major within SPHL-Family Science department.

Social, political, cultural and economic factors influencing income and wealth in American families.

0101	Kevin Roy MWF 9:00am - 9:50am	Seats (Total: 40) SPH 0308
0201	Natasha Williams TuTh 3:30pm - 4:45pm	Seats (Total: 40) ONLINE

FMSC383 **Health and Human Services Delivery and Evaluation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC330. Restriction: Must be in a major within SPHL-Family Science department.

Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

0101	Shanea Thomas MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 48) SPH 1301 ONLINE
	11/29/2021 (2208) SUZ. Instructor teaching back-to back classes (FMSC383-0101, FMSC432-0201, and FMSC460-0101).	

FMSC399 **Independent Study**

(Perm req)

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

FMSC432 **Adult Development and Aging in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and (SOCY100 or SOCY105). And FMSC332; or must have completed a comparable development course. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC432 or FMST432. Formerly: FMST432.

Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

0201	Christine Schull	Seats (Total: 40)
	MW 10:00am - 10:50am Class time/details on ELMs	SPH 1301 ONLINE

FMSC460 **Violence in Families**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Prerequisite: SOCY100, SOCY105, or PSYC100. Credit only granted for: FMSC460 or FMST460. Formerly: FMST460.

Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

0101	Christine Schull	Seats (Total: 48)
	MW 9:00am - 9:50am Class time/details on ELMs	SPH 1301 ONLINE

FMSC477 **Internship and Analysis in Family Science**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FMSC383; and 9 credits in FMSC courses; and permission of SPHL-Family Science department. Restriction: Must be in a major within SPHL-Family Science department. Credit only granted for: FMSC477, FMST347, or FMST477. Formerly: FMST477.

A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

0101	Kendyl Oliver	Seats (Total: 50)	
	M 1:00pm - 2:30pm Class time/details on ELMs	PLS 1130 ONLINE	Lab

FMSC487 **Family Law**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Designed for students interested in studying the law, public health, and family science, this course provides students with a general overview of family law and the impact on healthy families. The course also includes the study of cutting-edge issues such as marriage equality, assisted reproduction and ethical issues that may arise.

0101	Kerry Tripp Th 9:30am - 10:45am Class time/details on ELMs	Seats (Total: 45) ITV 1111 ONLINE
0201	Kerry Tripp Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 45) ITV 1111 ONLINE

FMSC498 **Special Topics: Family Science; Family Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Special course topics in family studies.

Contact department for information to register for this course.

FMSC498H **Special Topics: Family Science; Family Studies Honors Thesis**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special course topics in family studies.

Contact department for information to register for this course.

FMSC601 **Doctoral Seminar in the Process of Inquiry**

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be a first-year student in the Family Science doctoral program or Maternal and Child Health doctoral program; or permission of instructor .

This small, team-taught pro-seminar is designed as an introduction to the integration of family science and public health paradigms. The focus is the full, complex "process of inquiry", with emphasis on the conceptualization phase of the process, as it leads to related design, planning, empirical, and analytic phases. Instead of emphasizing content, the pro-seminar will help students develop a broad "way of thinking" about scientific inquiry, which will guide their coursework, assessments, and independent scholarly work during their doctoral training.

0101	Amy Lewin F 12:00pm - 3:00pm	Seats (Total: 15) Location: TBA

FMSC640 **Family Therapy: Theory and Techniques**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: FMSC640 or FMST640. Formerly: FMST640.

Overview of fundamental theoretical concepts and clinical procedures in marital and family therapy, with an emphasis on those therapies which operate from a family systems perspective.

0101	Marjorie Nightingale Th 9:00am - 11:45am	Seats (Total: 11) Location: TBA

FMSC642 **Normal and Abnormal Individual and Family Development**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: FMSC640. Credit only granted for: FMSC642 or FMST642. Formerly: FMST642.

Normal development and psychopathology in the family system. Emphasis on parent-child relationships and application of the current Diagnostic and Statistical Manual of Mental Disorders (DSM) to family therapy.

Formerly: FMST642. Credit only granted for FMSC642 or FMST642. Prerequisite: FMSC640. Normal development and psychopathology in the family system. Emphasis on parent-child relationships and application of the current Diagnostic and Statistical Manual of Mental Disorders (DSM) to family therapy.

0101	Marjorie Nightingale M 10:00am - 12:45pm	Seats (Total: 15) Location: TBA

FMSC650 **Ethical, Legal, and Professional Principles in Couple and Family Therapy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Family Science department. Restriction: Must be in Couple and Family Therapy (Master's) program.

This course offers an introduction to the basic principles and practices in couple and family therapy. It covers major theoretical approaches to couple and family therapy, linking core concepts to practical aspects of assessment and treatment. Readings, didactic presentations by the instructor, and class discussions are designed to build students' knowledge of both generic therapy skills and specific techniques within each theoretical model. Emphasis is given to professional ethics, standards, and clinical skills/techniques necessary for the beginning family practitioner. Students become familiar with professional ethical codes as well as ethical decision-making models and how to apply them in clinical practice. In-class roleplays are used for practicing specific assessment and treatment methods, as well as for gaining experience in responding appropriately to a variety of common professional and ethical issues that arise in clinical practice.

0101	Erica Turner Tu 10:00am - 12:45pm	Seats (Total: 25) Location: TBA

FMSC652 **Psychopathology and Diagnosis in Family Systems**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: FMSC651. Restriction: Must be in Couple and Family Therapy (Master's) program.

The purpose of this course is to assist intermediate family therapists in further developing their knowledge, clinical, and professional expertise by deepening their understanding of major child and adult psychopathology. Further, students will learn to apply this knowledge to their clinical work, particularly in addressing individual family members' psychopathology within the context of family relationships. Major foci of the course include assessment and diagnostic interviewing in family therapy, and intervention with forms of psychopathology such as depression, anxiety disorders, substance abuse, and major mental disorders with clients who present for couple and family therapy.

0101	Mona Mittal Tu 9:00am - 11:45am	Seats (Total: 20) Location: TBA

FMSC658 **Supervised Clinical Practice in Couple and Family Therapy**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

This course is designed to provide supervision of family, couple, and individual therapy client contact. This course is limited to, and required of, all students admitted to the Couples and Family Therapy (CFT) Program. Supervision utilizes various family systems models and differing methods are employed.

Prerequisite: FMST 650 and permission of instructor.

0101	Amy Morgan W 9:00am - 12:00pm	Seats (Total: 20) Location: TBA

FMSC689 **Research Internship**

(Perm req)

Credits: 3 Grading Method: Regular

Research experience resulting in a scholarly article suitable for publication in a peer-reviewed journal.

Contact department for information to register for this course.

FMSC698 **Advanced Topics in Family Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC698A **Advanced Topics in Family Science**

Credits: 1-3 Grading Method: Regular, Audit

Arranged group study on specific topic which may vary from term to term.

0101	Mona Mittal Th 10:00am - 12:45pm	Seats (Total: 15) Location: TBA

FMSC699 **Independent Study**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Contact department for information to register for this course.

FMSC710 **Maternal and Child Health from a Life Course Perspective**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: FMSC710 or FMST710. Formerly: FMST710.

Survey of current science in maternal and child health informed by a life course perspective. The surveyed topics include inutero exposure to toxins, feeding and growth, and effects of chronic stress, maternal and child health.

0101	Edmond Shenassa	Seats (Total: 12)
	Tu 1:30pm - 4:30pm	SPH 0225

FMSC745 **Gender and Ethnicity in Family Therapy and Service Delivery**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: FMSC745 or FMST745. Formerly: FMST745.

Major critiques of sources of racial, cultural, and gender bias in marital and family therapy and family service delivery. Addresses these issues in program development and clinical practice.

0101	Jasmine Ferrill	Seats (Total: 15)
	M 10:00am - 12:45pm	Location: TBA

FMSC750 **Family and Health Policy**

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: FMSC750 or FMST750. Formerly: FMST750.

Development and analysis of public policies affecting the health and well-being of children, youth, and families, with an emphasis on low income and ethnic minority populations. Examination of social, economic, and political dynamics that influence family and health policies and the delivery of health care. Introduction to health advocacy within the US public health system.

0101	Christine Schull	Seats (Total: 15)
	M 1:00pm - 3:45pm	Location: TBA

FMSC789 **Non-Thesis Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Non-thesis option research papers.

Contact department for information to register for this course.

FMSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Must have written permission of faculty member and chairperson.

Contact department for information to register for this course.

FMSC879 **Preparing Future Faculty and Professionals Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health. Topics include: career mapping, networking, teaching/teaching portfolios, independent research, publishing, grant writing, program and policy evaluation, consulting, job search, interviewing and negotiation, mentoring, diversity, work-family balance, and ethical issues in the workplace. Periodic visits to universities and government/nonprofit employers.

Development of skills necessary to obtain and succeed in academic and non-academic positions in family science and public health.

0101	Sandra Quinn W 1:00pm - 1:50pm	Seats (Total: 10) Location: TBA

FMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

FMSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN French Fall 2022

FREN103 **Intensive Elementary French**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed FREN102; and must not be a native/fluent speaker of French. Credit only granted for: FREN102 or FREN103.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Richard Adle MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) JMZ 1122 ONLINE

0201	Marie Laverdiere MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 20) JMZ 0208 ONLINE
0301	Marie Laverdiere MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 20) JMZ 3205 ONLINE

FREN203 **Intensive Intermediate French**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN201 or FREN203.

Covers speaking, reading, writing, listening, and culture of French-speaking world.

0101	Michaelle Vilmont MWF 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2123 ONLINE
0201	Apolline Lagarde MWF 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 0205 ONLINE
0301	Michaelle Vilmont MWF 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 0103 ONLINE
0401	Madeline Muravchik MWF 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 25) JMZ 2206 ONLINE

FREN204 **French Grammar and Composition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to native/fluent speakers of French.

Intensive study of French grammar and composition.

0101	Samuel Blank MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2207 ONLINE
0201	Charlotte Joublot MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) JMZ 2207 ONLINE

FREN211 **French Reading and Conversation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: FREN201 or FREN203. Restriction: Must not be a native/fluent speaker of French.

Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

Contact department for information to register for this course.

FREN250 **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

Jointly offered with FREN 250H.

0101	Inaam Ngadi MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0125
0201	Inaam Ngadi MW 3:30pm - 4:45pm	Seats (Total: 25) JMZ 3120

FREN250H **Introduction to Cultural and Textual Analysis**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Prerequisite: FREN204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French. Credit only granted for: FREN250 or FREN250H.

Introduction to cultural and textual analysis of selected readings from various genres in French literature. Taught in French.

For general honors students only. Jointly offered with FREN 250.

0101	Inaam Ngadi MW 2:00pm - 3:15pm	Seats (Total: 25) JMZ 0125
0201	Inaam Ngadi MW 3:30pm - 4:45pm	Seats (Total: 25) JMZ 3120

FREN269F **Special Topics in Study Abroad II; French Conversation I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269G **Special Topics in Study Abroad II; French Conversation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN269P **Special Topics in Study Abroad II; Perspectives on Contemporary France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN301 **Composition and Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Grammatical analysis, elements of style; range of written genres.

0101	Theavy Din TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 3203

FREN302 **Introduction to Translation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Hands-on practice in translation to include a variety of formats and texts (for example, advertising, legal, technical, literary, journalistic, media...) into French and/or English. Includes an extensive overview of translation techniques, theories and approaches. Taught mainly in French.

0101	Morgan Stinson	Seats (Total: 20)
	Th 9:30am - 10:45am	ONLINE
	Class time/details on ELMs	ONLINE

FREN306 Commercial French I

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. Taught in French.

Contact department for information to register for this course.

FREN311 Advanced Oral Expression

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN250; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Linguistic and thematic analysis of written, audio, and visual texts. Focus on aural and oral skills. Some written assignments and evaluation.

Contact department for information to register for this course.

FREN312 France Today

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of French.

Analysis and discussion of current events and institutions using various French media resources.

Contact department for information to register for this course.

FREN313 Current Issues in the French-Speaking World

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

Analysis and discussion of current events and institutions in the French-speaking world using various French-language media resources with an emphasis on countries and regions outside of France.

0101	Marilyn Matar	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 3205

FREN351 **From Romanticism to the Age of Modernism and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Jointly offered with FREN 351H.

0101	Hannah Wegmann	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3205
	Class time/details on ELMs	ONLINE

FREN351H **From Romanticism to the Age of Modernism and Beyond**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

Cross-listed with FREN351.

0101	Hannah Wegmann	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 3205
	Class time/details on ELMs	ONLINE

FREN352 **From the Age of Epic and Romance to the Enlightenment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301; or students who have taken courses with comparable content may contact the department.

A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

Contact department for information to register for this course.

FREN369F **Special Topics in Study Abroad III; Third Year French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369G **Special Topics in Study Abroad III; Third-Year French II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN369Y **Special Topics in Study Abroad III; Fourth-Year French I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

FREN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

FREN387 **Critical Writing on France and the French-Speaking World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: FREN301. Restriction: Not open to Native speakers.

Intensive writing course based on focused study of issues and concerns drawn from French and Francophone literatures, films, and cultures. Elements of style, review of grammar. Taught in French.

Topic: Animals, Beasts, and other Humans

0101	Charlee Bezilla	Seats (Total: 20)
	Th 12:30pm - 1:45pm	JMZ 2117
	Class time/details on ELMs	ONLINE

FREN399 **Directed Study in French**

(Perm req)

Credits: 1-3 Grading Method: Regular

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Supervised work under professor of student's choice with permission of instructor. Contact department for details.

Contact department for information to register for this course.

FREN399A **Directed Study in French**

Credits: 3 Grading Method: Regular

Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

Contact department for information to register for this course.

FREN495H **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be admitted to the departmental honors program.

The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

Contact department for information to register for this course.

FREN498G **Special Topics in French Literature; Gender and Identity in Film and Literature of the French-Speaking World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in French literature.

Prerequisite: FREN351 or FREN352, and FREN387. An exploration of the constructions of gender, race, ethnicity and identity in contemporary France and the French-speaking world through engagement with a wide variety of materials (literary texts, films, newspaper articles, podcasts, etc). Taught in French.

0101	Valerie Orlando	Seats (Total: 20)
	MW 2:00pm - 3:15pm	JMZ 3120

FREN499 **Special Topics in French Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN499R **Special Topics in French Studies; Louange, critique, calomnie, censure: Reputation and Media in France, ca. 1200-1700**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Prerequisite: FREN351 or FREN352, and FREN387 An overview of the strategies employed to construct -- or destroy -- the reputation of public figures over time in France. What is considered relevant to someone s reputation? How do different genres approach the construction or destruction of a reputation? What kinds of controls were exercised over public discourse, and what can and cannot -- or should and should not -- be said about other people? Taught in French.

0101	Andrea Frisch	Seats (Total: 20)
	MWF 10:00am - 10:50am	ONLINE

FREN499X **Special Topics in French Studies; Directed Study in French**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An aspect of French studies, the specific topic to be announced each time the course is offered.

Contact department for information to register for this course.

FREN649A **Special Topic in Eighteenth Century French Literature; Science and Fiction in the Anthropocene: An Ecocritical Approach to the French Enlightenment**

Credits: 3 Grading Method: Regular, Audit

Explores selected texts from various genres (plays, essays, novels, poetry) with a focus on the emerging environmental crisis. Students will review the major theoreticians of the French Environmental Humanities while examining how 18th-century science, fictions, and sci-fi imagined new relationships between humans and non-humans.

0101	Sarah Benharrech	Seats (Total: 10)
	Th 2:00pm - 4:30pm	ONLINE

FREN699V **Seminar; Literary History of the French-Speaking Caribbean**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Topic to be determined each semester.

Focus is placed on 20th-21st century Caribbean literature. Students will study the socio-political, cultural and psychological themes prevalent in literature in French by authors from Guadeloupe, Haiti, and Martinique. Particular attention will be paid to how these writers have used the events of their eras to conceptualize and build a history of Caribbean literature that has sustained an enriching dialogue among the islands of the West Indies, France, and the Caribbean diaspora. Taught in French.

0101	Valerie Orlando	Seats (Total: 10)
	M 4:30pm - 7:15pm	JMZ 3106A

FREN709 **College Teaching of French**

Credits: 1 Grading Method: Sat-Fail

Introduction to the teaching of French at the college level with particular emphasis on methodology. Seminars in theory, demonstration of different teaching techniques, supervised practice teaching, training in language laboratory procedures, evaluation of instructional materials. Required of all graduate assistants in French.

Restricted to FRIT and FRMS graduate students unless permission granted by instructor.

0101	Hannah Wegmann	Seats (Total: 6)
	F 2:30pm - 4:00pm	JMZ 3106A

FREN798 **Master's Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

FREN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

FREN889 **Doctoral Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

FREN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

FREN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEMS Gemstone Fall 2022

GEMS100 **Freshman Honors Colloquium: Introduction to Gemstone**

Credits: 1 Grading Method: Regular

Restriction: Must be in the Gemstone program.

Orienting new Gemstone students to the university and to the program through a variety of team building activities, resources, and skill exploration exercises. Students will also examine and discuss areas such as liberal education, diversity, service, arts, current events, academic integrity, and leadership style.

0101	Jalah Townsend	Seats (Total: 11)
	Tu 11:00am - 12:15pm	ELL 0102

0102	Jalah Townsend Tu 12:30pm - 1:45pm	Seats (Total: 11) ELL 0102
0103	Jalah Townsend Tu 2:00pm - 3:15pm	Seats (Total: 11) ELL 0100A
0104	Jalah Townsend Tu 3:45pm - 5:00pm	Seats (Total: 11) ELL 0100A
0105	Jalah Townsend W 10:00am - 11:15am	Seats (Total: 11) ELL 0102
0106	Jalah Townsend W 12:30pm - 1:45pm	Seats (Total: 11) ELL 0100A
0107	Jalah Townsend W 3:30pm - 4:45pm	Seats (Total: 11) ELL 0100A
0108	Jalah Townsend W 4:45pm - 6:00pm	Seats (Total: 11) ELL 0102
0109	Jalah Townsend Th 9:30am - 10:45am	Seats (Total: 11) ELL 0102
0110	Jalah Townsend Th 12:30pm - 1:45pm	Seats (Total: 11) ELL 0102
0111	Jalah Townsend Th 2:00pm - 3:15pm	Seats (Total: 11) ELL 0100A
0112	Jalah Townsend Th 5:00pm - 6:15pm	Seats (Total: 11) ELL 0102
0113	Jalah Townsend F 9:15am - 10:30am	Seats (Total: 11) ELL 0102
0114	Jalah Townsend F 10:30am - 11:45am	Seats (Total: 11) ELL 0100A
0115	Jalah Townsend F 11:15am - 12:30pm	Seats (Total: 11) ELL 0102

0116	Jalah Townsend F 1:30pm - 2:45pm	Seats (Total: 11) ELL 0100A
0117	Jalah Townsend Th 3:30pm - 4:45pm	Seats (Total: 11) ELL 0100A

GEMS202 **Team Dynamics and Research Methodology**

Credits: 2 Grading Method: Regular General Education: DSSP

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS296. Restriction: Must be in the Gemstone program; and sophomore standing or higher.

This experiential course is designed to foster an understanding of effective team dynamics and basic research methodology. It will teach skills applicable to Gemstone team research and the writing of a team thesis. Upperclass Gemstone students serve as discussion facilitators. Students participate in their Gemstone teams and develop a draft of their team thesis proposal.

0101	David Lovell Tu 5:00pm - 6:30pm Contact instructor or department for details.	Seats (Total: 168) EGR 1202

GEMS208A **Special Topics in Leadership and Team Development; Team Dynamics and Research Methodology: First Time Section Leader**

Credits: 1-3 Grading Method: Regular

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	David Lovell Contact instructor or department for details.	Seats (Total: 14)

GEMS208B **Special Topics in Leadership and Team Development; Team Dynamics and Research Methodology: Returner Section Leader**

Credits: 1-3 Grading Method: Regular

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	David Lovell	Seats (Total: 14)
	Class time/details on ELMs	ONLINE

GEMS208C **Special Topics in Leadership and Team Development; Introduction to Gemstone: First Time Section Leader**

Credits: 1-3

Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program. These classes are scheduled in the Ellicott building.

0101	Jalah Townsend	Seats (Total: 23)
	Contact instructor or department for details.	

GEMS208D **Special Topics in Leadership and Team Development; Introduction to Gemstone: Returner Section Leader**

Credits: 1-3

Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program. These classes are scheduled in the Ellicott building.

0101	Jalah Townsend	Seats (Total: 10)
	Contact instructor or department for details.	

GEMS208J **Special Topics in Leadership and Team Development; Gems Camp**

Credits: 1-3

Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 24)
	Contact instructor or department for details.	

GEMS208K **Special Topics in Leadership and Team Development; GEMS Connect**

Credits: 1-3

Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

Restriction: Must be in the Gemstone program.

0101	Jalah Townsend	Seats (Total: 50)
	Contact instructor or department for details.	

GEMS208M **Special Topics in Leadership and Team Development; AMPP: The Gemstone Alumni Mentor & Partner Program**

Credits: 1-3 Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	David Lovell, Jalah Townsend	Seats (Total: 100)
	Contact instructor or department for details.	

GEMS208P **Special Topics in Leadership and Team Development; Gemstone Leadership Council**

Credits: 1-3 Grading Method: Regular, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jalah Townsend	Seats (Total: 21)
	Contact instructor or department for details.	

GEMS208Q **Special Topics in Leadership and Team Development; Facilitator TA**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

0101	Jazmin Pichardo	Seats (Total: 2)
	Contact instructor or department for details.	

GEMS296 **Team Project Seminar I**

Credits: 1 Grading Method: Regular

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

0101	Anil Deane W 5:15pm - 6:15pm Th 6:00pm - 6:50pm	Seats (Total: 14) ATL 4301 TYD 2111
0102	Mohammad Hafezi Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 14)
0103	Arnaud Trouve F 3:00pm - 3:50pm	Seats (Total: 14) JMP 3106B
0104	Sylvette La Touche-Howard Th 5:10pm - 6:10pm Contact instructor or department for details.	Seats (Total: 14) SPH 1234A
0105	Sahil Shah F 3:00pm - 3:50pm W 8:00pm - 8:50pm	Seats (Total: 14) Location: TBA Location: TBA
0106	Peter Sunderland M 3:00pm - 3:50pm Contact instructor or department for details.	Seats (Total: 14) ONLINE
0107	Myles Poulin F 4:00pm - 4:50pm	Seats (Total: 15) HBK 0108
0108	Mohammad Hajiaghayi M 6:00pm - 6:50pm Contact instructor or department for details.	Seats (Total: 14) ONLINE
0109	Brantley Hall Tu 6:30pm - 7:30pm Contact instructor or department for details.	Seats (Total: 14) EGR 0104

0110	Allan Doctor Th 8:00am - 8:50am Sa 4:00pm - 4:50pm	Seats (Total: 14) Location: TBA HBK 0108
0111	Huang Chiao Huang F 10:00am - 10:50am Tu 6:30pm - 7:30pm	Seats (Total: 14) Location: TBA Location: TBA
0112	Jonathan Katz MW 5:00pm - 5:50pm	Seats (Total: 14) JMZ 0205
0113	Derek Paley F 3:30pm - 5:30pm	Seats (Total: 14) IRB 3156
0114	Daniel Stein M 4:00pm - 4:50pm	Seats (Total: 14) MCB 1121
0115	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS297 **Team Project Seminar II**

Credits: 2 Grading Method: Regular

Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the second of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team develops its website, prepares and presents its research proposal and begins its research project.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS396 **Team Project Seminar III**

Credits: 2 Grading Method: Regular

Prerequisite: GEMS297. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the third of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team presents its progress at the Gemstone Colloquia.

0101	Kan Cao F 8:00pm - 8:50pm Th 8:00pm - 8:50pm	Seats (Total: 14) Location: TBA Location: TBA

0102	Tao Lowe W 6:00pm - 6:50pm M 5:15pm - 6:15pm	Seats (Total: 14) HBK 0108 HBK 0108
0103	Brian Beaudoin Th 5:00pm - 5:50pm F 4:00pm - 4:50pm	Seats (Total: 14) Location: TBA Location: TBA
0104	Bao Yang W 5:00pm - 5:50pm M 5:00pm - 5:50pm	Seats (Total: 14) EGR 3111 CHM 2201
0105	David Kriesberg Su 6:00pm - 6:50pm M 6:00pm - 6:50pm	Seats (Total: 14) Location: TBA Location: TBA
0106	Soheil Feizi W 5:00pm - 5:50pm M 5:00pm - 5:50pm	Seats (Total: 14) ONLINE Location: TBA
0107	Ray Sedwick W 5:00pm - 5:50pm W 6:00pm - 6:50pm	Seats (Total: 14) KEB 1111 KEB 1111
0108	Lance Yonkos M 7:00pm - 7:50pm Th 8:30am - 9:20am	Seats (Total: 14) ANS 0538 ESJ B0322
0109	Timothy Horiuchi M 3:30pm - 4:30pm W 3:30pm - 4:30pm	Seats (Total: 14) AVW 2270 CSI 3118
0110	Po-Yen Chen Th 6:30pm - 8:10pm	Seats (Total: 14) HJP 2242
0111	Elizabeth Aparicio M 12:00pm - 12:50pm M 4:00pm - 4:50pm	Seats (Total: 14) HBK 0108 HBK 0108

0112	Ryan Sochol Th 5:00pm - 5:50pm M 9:00am - 9:50am	Seats (Total: 14) HBK 0108 Location: TBA
0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS397 **Team Project Seminar IV**

Credits: 2 Grading Method: Regular

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program with junior standing in a research team.

This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research with the guidance of a faculty mentor. The team further develops its website. Also they will prepare and present the team project in the poster session of Undergraduate Research Day.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEMS496 **Project Writing Seminar**

Credits: 2 Grading Method: Regular

Prerequisite: GEMS397. Restriction: Must be in the Gemstone program.

This is the fifth of six seminars during which Gemstone students carry out research with the guidance of a faculty mentor. The team finishes the analysis of their data and writes and edits its team thesis.

0101	Anil Deane F 4:00pm - 5:50pm	Seats (Total: 14) ONLINE
0102	Mohamad Al-Sheikhly Tu 5:00pm - 5:50pm F 3:00pm - 3:50pm	Seats (Total: 14) Location: TBA CHE 2337
0103	Steve Sin Tu 6:30pm - 8:10pm Contact instructor or department for details.	Seats (Total: 14) IRB 1207
0104	Silvina Matysiak M 1:00pm - 1:50pm Th 6:30pm - 7:20pm F 8:00pm - 8:50pm	Seats (Total: 14) JMZ 1103 ONLINE ONLINE

0105	Ray Sedwick M 6:30pm - 7:30pm F 2:30pm - 3:30pm	Seats (Total: 14) Location: TBA Location: TBA
0106	David Akin W 2:30pm - 3:30pm Contact instructor or department for details.	Seats (Total: 14) Location: TBA
0107	Yanjin Zhang WTh 6:30pm - 7:30pm	Seats (Total: 14) JMZ 1226
0108	Richard Blanton F 3:00pm - 3:50pm Th 7:00pm - 7:50pm	Seats (Total: 14) AJC 1117 AJC 1114
0109	Jae Kun Shim F 11:00am - 11:50am Su 11:00am - 11:50am	Seats (Total: 14) SPH 0102 Location: TBA
0110	Mary Beth Furst W 5:00pm - 5:50pm M 6:00pm - 6:50pm	Seats (Total: 14) ONLINE ONLINE
0111	Younggeon Jin Th 5:15pm - 7:15pm Contact instructor or department for details.	Seats (Total: 14) ANS 3105
0113	David Lovell Contact instructor or department for details.	Seats (Total: 3)

GEMS497 **Team Thesis Defense**

Credits: 2 Grading Method: Regular General Education: DSSP

Prerequisite: GEMS396. Restriction: Must be in the Gemstone program.

Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

0113	David Lovell Contact instructor or department for details.	Seats (Total: 5)

GEOG Geographical Sciences Fall 2022

GEOG110 **The World Today: Global Perspectives**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSHS, DVUP

The most critical issue facing the world today is the sustainability of both human and physical systems in the 21st century. This class uses the context of regions of the world to explore the 21st century issues of climate change, development, politics, economy, and demography. Each region will be used to highlight aspects of sustainability.

FC01	Rachel Haber MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) LEF 1158

GEOG130 **Development Geography: Environmental & Social Justice**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB, D	General Education: DSHS, DSSP

The geography of economic, social, and environmental well-being and inequality. The course will provide an integrated perspective on the causes, interconnections, and consequences across time and space of, among others, globalization, climate change, poverty, employment, migration and urban growth, agricultural productivity, rural development, policies and international trade. Portraits of selected countries and regions will be developed.

FC01	Byron Marroquin MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) KEY 0102

GEOG140 **Natural Disasters: Earthquakes, Floods, and Fires**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

Catastrophic Environmental Events (CCE) that are becoming more common in this time of global environmental change and it is essential that today's students be equipped with the knowledge and skills to be leaders as we, as a society, understand the upheaval that these CCEs are causing. Students will examine how CEEs shape human society and ecosystem from the interdisciplinary perspective afforded by the field of Geography. Students will use the latest geographic science concepts and techniques in exploring these events. Using satellite imagery they will gain a multi-scale perspective of the ecological and societal aspects of the events.

0201	Keith Yearwood MWF 1:00pm - 1:50pm	Seats (Total: 250) TYD 0130
FC01	Keith Yearwood MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 39) LEF 2166

GEOG170 **Mapping our Digital World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: DSNS

Introduction to technical methods used in gathering, analyzing, and mapping geospatial information for applications such as urban mobility, environmental monitoring, situational awareness, and disaster management. Topics include Geographic Information Systems (GIS), cartography, map projections, satellite and airborne remote sensing, the global positioning system (GPS), and introductory statistics and probability. The course is a gateway to more advanced technical classes in geospatial science.

0101	Naijun Zhou MWF 9:00am - 9:50am	Seats (Total: 150) LEF 2205	

GEOG201 Geography of Environmental Systems

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with GEOG211)

A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

0101	Chris Justice TuTh 12:30pm - 1:45pm	Seats (Total: 240) ESJ 0224	
FC01	Allison Bredder F 1:00pm - 4:00pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) EDU 1121	

GEOG202 Introduction to Human Geography

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVCC

Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

0101	Kuishuang Feng MW 3:00pm - 3:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 LEF 1201	 Discussion
0102	Kuishuang Feng MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 25) LEF 2205 LEF 1220	 Discussion
0103	Kuishuang Feng MW 3:00pm - 3:50pm F 12:00pm - 12:50pm	Seats (Total: 25) LEF 2205 LEF 1201	 Discussion

0104	Kuishuang Feng MW 3:00pm - 3:50pm F 2:00pm - 2:50pm	Seats (Total: 25) LEF 2205 LEF 1201	 Discussion

GEOG211 **Geography of Environmental Systems Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in GEOL120, GEOL100, or GEOG201.

A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

This is a 2 hr, 1 credit lab which parallels GEOG 201; Required for GEOG majors; optional for non-majors.

0101	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0201	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0301	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0401	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0501	Chris Justice, Baobao Liu Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0601	Chris Justice, Yuhao Wang Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0701	Chris Justice, Yuhao Wang Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0801	Chris Justice, Yuhao Wang Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab
0901	Chris Justice, Yuhao Wang Class time/details on ELMs	Seats (Total: 24) ONLINE	 Lab

1001	Chris Justice, Yuhao Wang Class time/details on ELMs	Seats (Total: 24) ONLINE	Lab
FCW1	Brandon Bush Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ONLINE	Lab

GEOG272 **Introduction to Earth Observation Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: GEOG272 or GEOG372. Formerly: GEOG372.

Concepts and principles of Earth observation and remote sensing in relation to photographic, thermal infrared and radar imaging. Methods of obtaining quantitative information from remotely-sensed images. Interpretation of remotely-sensed images emphasizing the study of spatial and environmental relationships.

Students must pay a $40.00 laboratory materials fee.

0101	Dongdong Wang MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) JMP 3201 LEF 1136	Lab
0102	Dongdong Wang MW 9:00am - 9:50am F 11:00am - 12:50pm	Seats (Total: 25) JMP 3201 LEF 1138	Lab
0103	Dongdong Wang MW 9:00am - 9:50am Th 11:00am - 12:50pm	Seats (Total: 25) JMP 3201 LEF 1136	Lab
0104	Dongdong Wang MW 9:00am - 9:50am Th 11:00am - 12:50pm	Seats (Total: 25) JMP 3201 LEF 1138	Lab

GEOG276 **Principles of Python Programming and Geocomputing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduces conceptual and practical aspects of scientific computing using the Python programming language. The main focus is on developing proficiency for the basic elements of the development environment, foundational syntax including variables, logical operators, looping, conditional statements, nesting, and common programming patterns for mathematical and textual computing. In addition, essential data structures and functionality for scientific computing, such as arrays, dataframes, and data visualization will be introduced. Throughout the course, students will also become exposed to various applications in the domain of the social and environmental sciences.

Students must pay a $40.00 laboratory materials fee.

0101	Taylor Oshan MW 11:00am - 11:50am W 12:00pm - 1:50pm	Seats (Total: 24) LEF 1158 LEF 1136	Lab
0102	Taylor Oshan MW 11:00am - 11:50am W 12:00pm - 1:50pm	Seats (Total: 24) LEF 1158 LEF 1138	Lab

GEOG330 **As the World Turns: Society and Sustainability in a Time of Great Change**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP, SCIS

Credit only granted for: GEOG330, GEOG360, or GEOG362. Formerly: GEOG362.

Cultural geography course on society and sustainability. Culture is the basic building block that is key to sustainability of societies. Course will cover sustainability of societies on different scales, examining local, regional, and worldwide issues. Sustainability will be examined as a key element of environmental sustainability. How societies adjust to rapid world change will be examined as a positive and/or negative factor in sustainability.

0101	Rachel Haber MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 ASY 3219	Discussion
0102	Rachel Haber MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) ESJ 2208 SQH 1121	Discussion
0103	Rachel Haber MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 25) ESJ 2208 SQH 1121	Discussion
0104	Rachel Haber MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 25) ESJ 2208 ASY 3219	Discussion

0105	Rachel Haber MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) ESJ 2208 TWS 0320	Discussion
0106	Rachel Haber MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 2208 KNI 1103	Discussion

GEOG332 Economic Geography

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: GEOG203, GEOG303, or GEOG332. Formerly: GEOG303.

Principles of managing scarce resources in a world where everyone faces tradeoffs across both time and space. Focuses on the relationship between globalization processes and changing patterns of locational advantages, production, trade, population, socioeconomic and environmental grace and sustainability.

0101	Julie Silva MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 24) LEF 2166 LEF 1171	Discussion
0102	Julie Silva MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 24) LEF 2166 LEF 1171	Discussion

GEOG371 Programming for Image Analysis

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG276, GEOG306, and GEOG272.

Introduces application programing interface (API) functions and image processing techniques for efficient processing of satellite images. The main programing language of the course is Python. The course will use a Geospatial Data Abstraction Library (GDAL) which provides a unified way of manipulating images incorporating geospatial information. For image processing, the course will use Python-based libraries such as scikit-image and OpenCV.

0101	Sergii Skakun TuTh 9:30am - 10:45am	Seats (Total: 25) LEF 1158	

GEOG373 Geographic Information Systems

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

Students must pay a $40.00 laboratory materials fee.

0101	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 9:00am - 10:50am	SQH 1120 LEF 1138	Lab
	Open to GEOG, GIS, and ENSP-Coastal, Land Use, Global majors or GIS and Remote Sensing minors only.		
0102	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 1:00pm - 2:50pm	SQH 1120 LEF 1136	Lab
0103	Naijun Zhou	Seats (Total: 25)	
	MW 10:00am - 10:50am F 3:00pm - 4:50pm	SQH 1120 LEF 1136	Lab

GEOG384 **Internship in Geography I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)	
	Contact instructor or department for details.		

GEOG384H **Internship in Geography I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and (ENGL393 or ENGL390). Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 10)
	Contact instructor or department for details.	

GEOG385 **Internship in Geography II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 25)
	Contact instructor or department for details.	

GEOG385H **Internship in Geography II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG211, GEOG306, GEOG212, and GEOG201; and must have completed a Junior (Professional) English course. Restriction: Must be in Geography program.

Supervised field training to provide career experience. Introduction to professional-level activities, demands, opportunities. Placement at a public agency, nonprofit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

0101	Keith Yearwood	Seats (Total: 10)
	Contact instructor or department for details.	

GEOG398 **Special Topics in Geography**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

Contact department for information to register for this course.

GEOG398H **Special Topics in Geography**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An introductory course dealing with special topics in geography.

0101	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

GEOG418 **Field and Laboratory Techniques in Environmental Science**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Lecture and laboratory learning each week. A variable credit course that introduces field and laboratory analyses in environmental science. Individual learning contract are developed with instructor.

Lecture and laboratory learning each week. A variable credit course that introduces field and laboratory analyses in environmental science. Individual learning contract are developed with instructor. Students must pay a $300.00 laboratory materials fee.

0101	Ralph Dubayah	Seats (Total: 20)
	W 4:00pm - 6:30pm	TWS 1310

GEOG471 **Technologies for Computational Earth Observations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG371 or permission of instructor.

An introduction and exploration of cutting-edge novel remote sensing datasets and their associated science uses and applications. We present several modules focused on different technologies (multispectral, lidar, radar, thermal), and for each have both hands-on lab assignments, lectures, and applications case studies. Data fusion techniques, and common analysis and processing pitfalls are presented and discussed. Hands-on computer labs allow students to explore each dataset via online tutorials. After all datasets are presented, students download their own datasets in an area of interest to them, and work toward a unique student-driven project for presentation to the class. The sky is literally the limit in this interactive course which provides a research experience opportunity for students in a supportive atmosphere.

Cross-listed with GEOG688T. Credit only granted for GEOG471 or GEOG688T.

0101	Laura Duncanson	Seats (Total: 25)
	TuTh 9:30am - 10:45am	LEF 1201

GEOG475 **Computer Cartography**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOG373 and GEOG306.

An overview of the basic concepts and techniques that underlie digital map making and the broader field of geographic visualization for intermediate GIS users. This includes the use of color, map symbolization, map layout, and also the contribution to geographic visualization from the fields of scientific visualization, information visualization, and cognition. Fundamentals of dynamic map design and web mapping will be introduced through the use of animated and interactive maps.

Students must pay a $40.00 laboratory materials fee.

0101	Kathleen Stewart MW 3:00pm - 3:50pm F 9:00am - 10:50am	Seats (Total: 24) LEF 2166 LEF 1136	 Lab
0102	Kathleen Stewart MW 3:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 24) LEF 2166 LEF 1138	 Lab

GEOG498 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Contact department for information to register for this course.

GEOG498B **Topical Investigations; Coupled Human and Natural Systems**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Cross-listed with GEOG788B. Credit only granted for GEOG498B or GEOG788B. This course considers various ways of understanding interactions and feedback loops between human and natural systems. We begin with core readings on coupled systems, then proceed into different methods for researching such systems. Students will gain a fundamental understanding of this emerging area, opportunities to "'practice" appropriate methodological approaches, and a chance to conduct their own research.

0101	Meredith Gore TuTh 11:00am - 12:15pm	Seats (Total: 25) LEF 1201	

GEOG498N **Topical Investigations; Spatial Data Mining**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent study under individual guidance.

Concepts and techniques in spatial and spatio-temporal data mining from a computational perspective will be introduced. Topics include types of spatial and spatiotemporal data; foundations of spatial statistics; spatial pattern families (spatial clustering & hotspot detection, colocation, cascading, outlier detection, spatial prediction and classification); advanced topics including deep learning, adversarial learning, reinforcement learning and spatial big data platforms. Application domains of the techniques include smart cities, transportation, public health, public safety, agriculture, etc.

0101	Yiqun Xie TuTh 2:00pm - 3:15pm	Seats (Total: 25) LEF 1158	

GEOG601 **The Nature and Practice of Science**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Restriction: Permission of BSOS-Geography department. Credit only granted for: GEOG601 or GEOG788N. Formerly: GEOG788N.

Introduces students to the nature and practice of science in physical and human geography, including practical methods for research productivity, professional, societal and ethical obligations of scientists, the philosophy of science, and the scientific literature. Students will prepare and critically evaluate research proposals.

0101	Julie Silva	Seats (Total: 25)
	M 3:00pm - 5:30pm	LEF 1220

GEOG603 **Masters Research Tutorial**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOG600. Restriction: Permission of BSOS-Geography department. Credit only granted for: GEOG603 or GEOG610. Formerly: GEOG610.

Development of Masters scholarly paper topic, critical literature review, formulation of geographical approach to research methodology. Individual meetings with faculty. Comprehensive exam before the end of the semester.

Contact department for information to register for this course.

GEOG608 **Comprehensive Portfolio Assessment Summary**

Credits: 1-3 Grading Method: Sat-Fail

Evaluation of a PhD student's portfolio.

Contact department for information to register for this course.

GEOG652 **Digital Image Processing and Analysis**

Credits: 3 Grading Method: Regular

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to preprocessing steps including calibration and geo registration. Analysis methods include digital image exploration, feature extraction thematic classification, change detection, and biophysical characterization. One or more application examples may be reviewed.

Students must pay a $40 lab fee.

CG01	Yuchun Wei	Seats (Total: 20)	
	F 1:30pm - 5:00pm	ONLINE	
	Section only open to NNU students.		
PGS1	Evan Ellicott	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	BPS 0283	
	Th 5:30pm - 8:00pm	BPS 0283	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Evan Ellicott	Seats (Total: 20)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

GEOG653 Spatial Analysis

Credits: 3 Grading Method: Regular

Prerequisite: GEOG579; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in the Geospatial Information Sciences (Graduate Certificate) program.

Methods of spatial analysis including measuring aspects of geometric features and identifying spatial patterns of geospatial objects that are represented as point, line, network, areal data, and 3-D surfaces.

Students must pay a $40 lab fee.

CG01	Jianguo Ma	Seats (Total: 20)	
	Meets September 28, 2022 - November 17, 2022		
	MTuWF 1:30pm - 6:30pm	ONLINE	
	Th 9:00am - 11:30am	ONLINE	
	Section only open to NNU students.		

PGS1	Jianguo Ma	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	LEF 1158	
	Tu 5:30pm - 7:30pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		
PLG1	Jianguo Ma	Seats (Total: 25)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 7:30pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		
PLG2	Jianguo Ma	Seats (Total: 15)	
	Meets August 29, 2022 - November 18, 2022		
	Tu 10:00am - 12:25pm	ONLINE	
	Tu 12:30pm - 3:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online NOAA cohort.		

GEOG654 GIS and Spatial Modeling

Credits: 3 Grading Method: Regular

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

Provide foundations and understanding on various issues related to modeling and simulation in GIS context. It will addresses the concepts, tools, and techniques of GIS modeling, and presents modeling concepts and theory as well as provides opportunities for hands-on model design, construction, and application. The focus will be on raster-based modeling. This course is also application-orientated, particularly in these fields such as terrain modeling, LULC modeling, hydrological modeling, suitability modeling, etc.

Students must pay a $40.00 lab fee.

PGS1	Jonathan Resop	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	LEF 1158	
	Th 5:30pm - 8:00pm	LEF 1158	Lab
	Must be in Graduate Programs in Geospatial Information Sciences.		

PLG1	Jonathan Resop	Seats (Total: 25)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences, Online.		

GEOG656 **Advanced Programming for GIS**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOG653. Restriction: Must be in Geospatial Information Sciences (Master's) program; or must be in Graduate Certificate: Professional Studies-Geospatial Information Sciences.

Programming and scripting for intermediate GIS users. The fundamental concepts of computer programming will be introduced within the Geoprocessing framework in ArcGIS primarily using Python. Concepts of object-oriented programming and scripting will be presented. Students will develop skills in programming techniques to explore, manipulate and model spatial data using the Geoprocessor methods.

CG01	Qin Ma	Seats (Total: 20)	
	Meets August 28, 2022 - December 12, 2022		
	Class time/details on ELMs	ONLINE	
	Section only open to NNU students.		

GEOG661 **Fundamentals of Geospatial Intelligence**

Credits: 3 Grading Method: Regular

Geospatial Intelligence (GEOINT) is the collection, analysis, visualization and dissemination of geospatial information to support decision-making. This course introduces the fundamental knowledge required to become a successful GEOINT practitioner, including the history of the GEOINT discipline, the intelligence applications of remote sensing and Geographic Information Systems (GIS) technologies, and how GEOINT products are used to support national security and humanitarian missions. Upon completion of this course you will understand the roles that technology, policy, doctrine, government, and industry play in shaping the Geospatial Intelligence discipline, and develop the technical knowledge and domain expertise to create basic GEOINT products that provide context for decision makers.

Students must pay a $40.00 laboratory materials fee.

PGS1	Jonathon Hathaway	Seats (Total: 20)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	LEF 1201	
	Th 5:30pm - 8:00pm	LEF 1136	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence.		
PLG1	Jonathon Hathaway	Seats (Total: 15)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online.		

GEOG662 **Advances in GIS and Remote Sensing**

Credits: 3 Grading Method: Regular, Audit

Restriction: Students taking the course must be familiar with data structures, basic GIS and RS concepts, and demonstrate basic understanding of using GIS and RS software. And must be enrolled in Geographical Sciences MPS or graduate certificate program; or permission of BSOS-Geography department.

Focuses on state-of-the-art advances in geographic information science and remote sensing as they support geospatial intelligence. Focus on synergies between GIS and remote sensing in informatics, computer science, and spatial engineering, and their application to problem domains in human systems, physical systems, and cyberspace. Advances in GIS presents recent advances regarding fundamental issues of geo-spatial information science (space and time, spatial analysis, uncertainty modeling and geo-visualization), and new scientific and technological research initiatives for geo-spatial information science (such as spatial data mining, mobile data modeling, and location-based services). Advances in remote sensing will provide opportunity to understand and work with latest developments in the Remote Sensing datasets. The curriculum covers wide range of remote sensing data interpretation and their processing techniques.

Students must pay a $40.00 laboratory materials fee.

PGS1	Ruibo Han	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	LEF 1106	
	Tu 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		

PLG1	Ruibo Han	Seats (Total: 25)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG682 Open Source Intelligence

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Open Source Intelligence (OSINT) is information that is publicly available that is collected and analyzed to support decision-making. The collection and analysis of OSINT is often considered to be the first step in developing an all-source intelligence product, where OSINT is fused with Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT), and Human Intelligence (HUMINT). In this course you will learn about the sources, ethics, and methods that are associated with OSINT, and will also develop knowledge and skills related to open-source geospatial technologies and organizations such as the Open Geospatial Consortium (OGC).

Students must pay a $40.00 laboratory materials fee.

PGS1	Mayur Gosai	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	KEY 0100	
	Tu 5:30pm - 8:00pm	KEY 0100	Lab
	Must be in Graduate Programs in Geospatial Intelligence.		
PLG1	Mayur Gosai	Seats (Total: 25)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Intelligence, Online.		

GEOG686 Mobile GIS and Geocomputing

Credits: 3 Grading Method: Regular

Prerequisite: Permission of BSOS-Geography department; or must be enrolled in Geographical Sciences MPS or graduate certificate program. Recommended: Students taking the course must be familiar with data structures, basic GIS concepts, and demonstrate basic understanding of object-oriented programming under GIS environment. Credit only granted for: GEOG477, GEOG498V, GEOG788V or GEOG777. Additional information: Tablets that run android and iOS will be loaned to registered students at no cost.

An introduction to mobile GIS, to the programming concepts underlying mobile GIS development, and to the design and implementation of a mobile GIS application. Covers how to develop, test, and publish mobile GIS native apps working across two mobile platforms: Android and iOS. Leverages the capabilities of JavaScript, Swift, Google maps, ArcGIS Server and runtime SDK to developing and publishing mobile GIS apps.

Students must pay a $40.00 laboratory materials fee.

PGS1	Ruibo Han	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	LEF 1106	
	Th 5:30pm - 8:00pm	LEF 1106	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence.		
PLG1	Ruibo Han	Seats (Total: 25)	
	Meets August 29, 2022 - November 18, 2022		
	W 5:30pm - 8:00pm	ONLINE	
	Th 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, Online.		

GEOG688T **Selected Topics in GIS; Technologies for Computational Earth Observations**

Credits: 3 Grading Method: Regular, Audit

Readings and discussion on selected topics in the field of Geographic Information Science (GIS).

Cross-listed with GEOG471. Credit only granted for GEOG471 or GEOG688T. An introduction and exploration of cutting-edge novel remote sensing datasets and their associated science uses and applications. We present several modules focused on different technologies (multispectral, lidar,radar, thermal), and for each have both hands-on lab assignments, lectures, and applications case studies. Data fusion techniques, and common analysis and processing pitfalls are presented and discussed. Hands-on computer labs allow students to explore each dataset via online tutorials. After all datasets are presented, students download their own datasets in an area of interest to them, and work toward a unique student-driven project for presentation to the class. The sky is literally the limit in this interactive course which provides a research experience opportunity for students in a supportive atmosphere.

0101	Laura Duncanson	Seats (Total: 25)
	TuTh 9:30am - 10:45am	LEF 1201

GEOG788 **Selected Topics in Geography**

(Perm req)

Credits: 1-3 Grading Method: Regular

Readings and discussion on selected topics in the field of geography.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG788B **Selected Topics in Geography; Coupled Human and Natural Systems**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Readings and discussion on selected topics in the field of geography.

Cross-listed with GEOG498B. Credit only granted for GEOG498B or GEOG788B. This course considers various ways of understanding interactions and feedback loops between human and natural systems. We begin with core readings on coupled systems, then proceed into different methods for researching such systems. Students will gain a fundamental understanding of this emerging area, opportunities to "'practice" appropriate methodological approaches, and a chance to conduct their own research.

0101	Meredith Gore	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	LEF 1201

GEOG788F **Selected Topics in Geography; Deforestation, Land Grab, and Global Commodity Chains**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Readings and discussion on selected topics in the field of geography.

In today's globalized world, final products and consumption are increasingly met by global supply chains that often involve large geographical distances and lead to global environmental change, such as deforestation and other land cover change, all impacting important ecosystem services. This course will explore major trends of commodity trade, existing global trade database, environmental accounting approaches and models, and social and economic drivers of land cover and land use change with regard to land displacement and deforestation.

0101	Kuishuang Feng	Seats (Total: 25)
	Tu 3:30pm - 6:00pm	LEF 1220

GEOG788L **Selected Topics in Geography; Spatial Data Mining**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Readings and discussion on selected topics in the field of geography.

Concepts and techniques in spatial and spatio-temporal data mining from a computational perspective will be introduced. Topics include types of spatial and spatiotemporal data; foundations of spatial statistics; spatial pattern families (spatial clustering & hotspot detection, colocation, cascading, outlier detection, spatial prediction and classification); advanced topics including deep learning, adversarial learning, reinforcement learning and spatial big data platforms. Application domains of the techniques include smart cities, transportation, public health, public safety, agriculture, etc.

0101	Yiqun Xie	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	LEF 1158

GEOG788Z **Selected Topics in Geography; Topics in Data Visualization with Processing and Applications in R**

Credits: 3 Grading Method: Regular, Audit

Readings and discussion on selected topics in the field of geography.

Addressing critical human challenges requires effective communication of information. Visualization can provide powerful means to motivate research, communicate findings, and improve our approaches. This course aims to provide an understanding of the theory underpinning the field of data visualization and to provide an introduction to the practicalities of creating effective graphical representations of data. The course will develop the skills to process different kinds of data for effective visualization using modern data science workflow tools supported in R.

0101	Giovanni Baiocchi	Seats (Total: 25)
	W 4:00pm - 6:30pm	LEF 1220

GEOG789 **Independent Readings**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Independent reading as arranged between a graduate faculty member and graduate student.

Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

GEOG790 **Internship in Geography**

Credits: 3 Grading Method: Regular, Audit

Field experience in the student's specialty in a Federal, state, or local agency or private business. Research paper required.

Contact department for information to register for this course.

GEOG797 **Professional Project**

Credits: 3 Grading Method: Regular

Restriction: Must be in Geospatial Information Sciences (Master's) program.

Data and materials can originate from an internship (internal or external) or from relevant work experience with current employer. Under direction of faculty advisor, students will prepare a project report containing explanation of the requirements for the work, technical account of the activities undertaken, including literature review, description of methods and approaches taken, a critical discussion of results, along with conclusions and recommendations developed from the project. Final project will consist of a full-fledged GIS application that is up and running and can be tested, providing potential employers with a portfolio demonstrating student's ability to manage and develop a GIS application in real world situations.

Students must pay a $40 lab fee.

PGS1	Jonathan Resop	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	LEF 1171	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence.		
PLG1	Jonathan Resop	Seats (Total: 35)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:30pm - 8:00pm	ONLINE	
	Tu 5:30pm - 8:00pm	ONLINE	Lab
	Must be in Graduate Programs in Geospatial Information Sciences or Geospatial Intelligence, online.		

GEOG798 **Selected Topics in Geography: Seminar Series; Departmental Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Readings and discussions on selected topics in the field of geography.

0101	Tatiana Loboda	Seats (Total: 50)
	Th 3:45pm - 5:15pm	ONLINE

GEOG799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOG898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

GEOG899 **Doctoral Dissertation Research**

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL Geology Fall 2022

GEOL100 Physical Geology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 110.

A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

0101	Tracey Centorbi MWF 1:00pm - 1:50pm	Seats (Total: 99) ATL 2324
0201	Ricardo Arevalo TuTh 2:00pm - 3:15pm	Seats (Total: 99) PLS 1140

GEOL104 Dinosaurs: A Natural History

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Dinosaurs, their evolution, and our understanding of their fossil record. Students will examine the geologic record and the tools used by paleontologists to determine: geologic ages and ancient environments; evolutionary history and extinctions; dinosaurian biology and behavior; and their survival as birds. Mechanisms of global change ranging from plate tectonics to asteroid impact will be discussed.

0101	Thomas Holtz MWF 10:00am - 10:50am	Seats (Total: 60) CCC 1100

GEOL110 Physical Geology Laboratory

Credits: 1 Grading Method: Regular, Pass-Fail

Prerequisite: Must have completed or be concurrently enrolled in GEOL120 or GEOL100. Additional information: CORE Distributive Studies Physical Science Laboratory Course only when taken concurrently with GEOL 100.

The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

0101	Tracey Centorbi, Lucas Andrews Th 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	Lab

0102	Tracey Centorbi, Kathleen Stepien M 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	Lab
0103	Tracey Centorbi, Kyle Kim Tu 12:00pm - 3:00pm	Seats (Total: 24) GEO 2106	Lab
0104	Tracey Centorbi, James Bader Tu 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	Lab
0106	Tracey Centorbi, Kathleen Stepien W 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab
0107	Tracey Centorbi, Lucas Andrews W 3:00pm - 6:00pm	Seats (Total: 24) GEO 2106	Lab
0109	Tracey Centorbi, Kyle Kim Tu 9:00am - 12:00pm	Seats (Total: 24) GEO 2106	Lab

GEOL120 **Environmental Geology**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNL (if taken with GEOL110), DSNS

Credit only granted for: GEOL100 or GEOL120.

A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

0101	Tracey Centorbi TuTh 12:30pm - 1:45pm M 3:00pm - 3:50pm	Seats (Total: 20) CHE 2108 ATL 2416	Discussion
0102	Tracey Centorbi TuTh 12:30pm - 1:45pm M 4:00pm - 4:50pm	Seats (Total: 20) CHE 2108 ATL 2416	Discussion
0103	Tracey Centorbi TuTh 12:30pm - 1:45pm M 5:00pm - 5:50pm	Seats (Total: 20) CHE 2108 ATL 2416	Discussion

FC01	Tracey Centorbi TuTh 4:30pm - 5:45pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PHY 2122 PLS 1158	Discussion
FC02	Tracey Centorbi TuTh 4:30pm - 5:45pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 18) PHY 2122 PLS 1158	Discussion

GEOL123 **Causes and Consequences of Global Change**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

Cross-listed with: AOSC123. Credit only granted for: AOSC123, GEOG123, GEOL123, or METO123.

Study of the major components of Earth's climate system and climate change history. Discussion of 21st century climate change prediction, mitigation and adaptation efforts.

0101	Jeffrey Henrikson MW 4:00pm - 4:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 EGR 3102	Discussion
0102	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 EGR 3102	Discussion
0103	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 2204 MTH 0104	Discussion
0104	Jeffrey Henrikson MW 4:00pm - 4:50pm F 9:00am - 9:50am	Seats (Total: 20) ESJ 2204 CSI 2120	Discussion
0105	Jeffrey Henrikson MW 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 20) ESJ 2204 EGR 1110	Discussion
0106	Jeffrey Henrikson MW 4:00pm - 4:50pm F 11:00am - 11:50am	Seats (Total: 20) ESJ 2204 CHE 2145	Discussion

GEOL124 **Evolution of Life and Environment on Planet Earth**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

An exploration of how life has shaped Earth's physical environments, both in the contemporary Earth and over the long course of Earth history. Topics range from evidence for the origin and diversification of life and its impact on Earth environments to the mind-set and methods of the scientists who interpret it, and what those methods tell us about future interactions between life and the environment, both on Earth and in the Solar System.

Restricted to students in Carillon Communities.

0101	James Farquhar TuTh 12:30pm - 1:45pm W 3:00pm - 3:50pm	Seats (Total: 18) IRB 1116 PLS 1117	Discussion
0102	James Farquhar TuTh 12:30pm - 1:45pm W 4:00pm - 4:50pm	Seats (Total: 18) IRB 1116 PLS 1117	Discussion
0103	James Farquhar TuTh 12:30pm - 1:45pm W 5:00pm - 5:50pm	Seats (Total: 18) IRB 1116 PLS 1117	Discussion

GEOL200 **Earth's Fury: Earthquakes, Volcanoes, and Tsunami**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: PS	General Education: DSNS, SCIS

Earthquakes, volcanic eruptions, and tsunami frequently remind us of the dangers associated with living on a constantly changing planet. How do people prepare for these rare but dramatic events? Student will study the science behind earthquakes and volcanoes, how it guides monitoring, forecasting, prevention, and response, and the cultural and ethical aspects of these events.

0101	Vedran Lekic TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 20) SKN 0200 ATL 2416	Discussion
0102	Vedran Lekic TuTh 9:30am - 10:45am W 4:00pm - 4:50pm	Seats (Total: 20) SKN 0200 ATL 2416	Discussion
0103	Vedran Lekic TuTh 9:30am - 10:45am W 5:00pm - 5:50pm	Seats (Total: 20) SKN 0200 ATL 2416	Discussion

0104	Vedran Lekic TuTh 9:30am - 10:45am W 3:00pm - 3:50pm	Seats (Total: 20) SKN 0200 PLS 1129	 Discussion
0105	Vedran Lekic TuTh 9:30am - 10:45am W 4:00pm - 4:50pm	Seats (Total: 20) SKN 0200 PLS 1129	 Discussion
0106	Vedran Lekic TuTh 9:30am - 10:45am W 5:00pm - 5:50pm	Seats (Total: 20) SKN 0200 PLS 1129	 Discussion

GEOL212 **Planetary Geology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS

Credit only granted for: ASTR330 or GEOL212.

An examination of the geologic and geochemical processes at work in the solar system from the perspectives supplied by space age exploration of the planets and other solar system bodies.

0101	John Merck MWF 9:00am - 9:50am	Seats (Total: 24) ATL 0201

GEOL331 **Principles of Paleontology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL102; or (BSCI207 or BSCI392); or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students. Cross-listed with: BSCI333. Credit only granted for: GEOL331 or BSCI333.

A review of the theory, principles, and applications of Paleontology. A systematic overview of the morphology, evolution, and relationships of the major fossil-producing taxa.

0101	Thomas Holtz, John Merck TuTh 9:30am - 10:45am Th 2:00pm - 5:00pm	Seats (Total: 30) PLS 1111 GEO 2107	 Lab

GEOL341 **Structural Geology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL102; and GEOL110. Or permission of CMNS-Geology department. Restriction: Permission of instructor is required of non-degree seeking students.

Study of the deformation of Earth's lithosphere, especially stress, rheology, strain, and the origin and significance of structural features. Development of 3-dimensional thinking through drafting and drawing of structures, construction of geologic maps and cross-sections, and stereographic and orthographic representation of structures. Improvement of scientific writing. Two weekend field trips.

0101	Mong-Han Huang	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	PLS 1117	
	M 10:00am - 1:00pm	GEO 2107	Lab

GEOL342 **Sedimentation and Stratigraphy**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL120 or GEOL100; and GEOL110; and GEOL322. And CHEM103; or (CHEM131 and CHEM132); or (CHEM135 and CHEM136). Restriction: Permission of instructor is required of non-degree-seeking students.

Description, origin, and distribution of sediments and sedimentary rocks.

0101	Alan Kaufman	Seats (Total: 15)	
	MWF 1:00pm - 1:50pm	PLS 1158	
	Tu 3:30pm - 6:30pm	GEO 2107	Lab

GEOL375 **Introduction to the Blue Ocean**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Prerequisite: MATH120 or higher. Recommended: MATH121, MATH141, PHYS161, or PHYS171. Cross-listed with: AOSC375. Credit only granted for: AOSC375, GEOL375 or METO375.

The global ocean is a major component of the Earth System that shapes life on earth, including our weather and climate. We explore the observation-based interdisciplinary science of oceanography, identifying its strong connections to related sciences like meteorology, and geography. We apply this developing understanding to environmental issues such as marine pollution, fish and fisheries, as well as to climate variability and to the changes to the marine environment that are resulting from steadily rising levels of atmospheric greenhouse gasses. Focusses include the biogeochemical and physical changes we can observe in the nearby Chesapeake Bay and the coastal waters of Eastern Shore, Maryland.

0101	James Carton	Seats (Total: 60)	
	MWF 11:00am - 11:50am	ATL 2324	

GEOL393 **Geology Senior Thesis I: Proposal**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS141 or (PHYS161 and PHYS174); and MATH141; and (CHEM131 and CHEM132) or (CHEM135 and CHEM136); and must have completed at least two upper-level geology courses and be concurrently enrolled in a third. Restriction: Junior standing or higher; and must be in Geology program.

The first semester of the two-semester Geology Senior Thesis. Emphasis is on developing a plan for original research in the geosciences and presenting that plan both in writing and in public presentations that adhere to geosciences professional standards.

0101	Philip Piccoli	Seats (Total: 15)
	W 4:00pm - 6:00pm	PLS 1158
	Contact instructor or department for details.	

GEOL394 **Geology Senior Thesis II: Research**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

Prerequisite: GEOL393; and must have completed at least three upper level GEOL courses. Restriction: Must be in Geology program; and junior standing or higher.

The second semester of the two-semester Geology Senior Thesis. Investigation of specific original research question in geosciences. Emphasis is on completion of original research proposed in GEOL393 and presentation of results both in writing and in public presentations that adhere to geosciences professional standards.

Contact department for information to register for this course.

GEOL423 **Optical Mineralogy**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL100 or GEOL120; and GEOL110; and GEOL322. And CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103. Restriction: Non-degree-seeking students require the permission of the instructor.

The optical behavior of crystals with emphasis on the theory and application of the petrographic microscope.

0101	Sarah Penniston-Dorland	Seats (Total: 17)	
	MWF 9:00am - 9:50am	HBK 0109	
	W 10:00am - 1:00pm	GEO 2117	Lab

GEOL444 **Low Temperature Geochemistry**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL322, GEOL100, and MATH115. And CHEM103; or (CHEM131 and CHEM132); or (CHEM135 and CHEM136). Restriction: Non-degree-seeking students require the permission of the instructor.

Basic chemical principles, thermodynamics, and kinetics of low-temperature inorganic and organic geochemical reactions in a wide range of surface environments. These geochemical tools will be used to provide a context for understanding elemental cycling and climate change. Laboratories will include problem sets as well as wet chemical and mass spectrometric techniques used in low temperature geochemistry.

0101	Tracey Centorbi	Seats (Total: 12)	
	TuTh 2:00pm - 3:15pm	CHE 2140	
	M 3:00pm - 5:45pm	ESJ 1324	Lab

GEOL446 Geophysics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS141, MATH141, and MATH140; and (GEOL100 or GEOL120). Restriction: Non-degree-seeking students require the permission of the instructor.

An introduction to modern geophysics. Topics include: global plate tectonics, plate motion, triple junctions, geomagnetism, earthquakes and faulting, reflection and refraction seismology, gravity and isostasy, heat flow and mantle dynamics, deep interior of the Earth, geophysical observations and measurements.

0101	Wenlu Zhu	Seats (Total: 23)
	TuTh 11:00am - 12:15pm	PLS 1158

GEOL451 Groundwater

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL110 and MATH140; and (GEOL120 or GEOL100); and (CHEM131 and CHEM132; or (CHEM135 and CHEM136); or CHEM103). Or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor; and junior standing or higher.

An introduction to the basic geologic parameters associated with the hydrologic cycle. Problems in the accumulation, distribution, and movement of groundwater will be analyzed.

0101	Wenlu Zhu	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	PLS 1172

GEOL452 Watershed and Wetland Hydrology

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Junior standing or higher; and all other students require the permission of the instructor.

Physical processes by which water moves in watershed and wetland systems. Topics include: precipitation, infiltration, flow in the unsaturated zone, streamflow generation processes, and groundwater flow.

0101	Karen Prestegaard	Seats (Total: 39)
	TuTh 3:30pm - 4:45pm	SPH 0308

GEOL453 Ecosystem Restoration

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH120 or MATH140; or must have completed MATH220. And (CHEM131 or CHEM135); and (CHEM132 or CHEM136); and (GEOL100, GEOL120, or ENST200). Restriction: Junior standing or higher; and permission of instructor is required of non-degree-seeking students. Credit only granted for: GEOL453 or GEOL489L. Formerly: GEOL489L.

Overview of ecosystem functions across biomes/geologic settings, and considerations and tradeoffs in ecosystem restoration strategies. Specific case studies and discussions will be aimed at understanding how structure can influence biophysical and biogeochemical processes supporting ecosystems, and then describes how rates, timing, and location of physical, chemical, and ecosystem processes can be altered by different restoration strategies to enhance ecosystem services.

Jointly offered with MEES698E and GEOL789L.

0101	Sujay Kaushal	Seats (Total: 20)
	Tu 3:30pm - 6:30pm	PLS 1168

GEOL460 Field Geophysics

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GEOL100 or GEOL120, MATH140, MATH141, and (PHYS141, PHYS161, or PHYS171). Restriction: Non-degree-seeking students require the permission of the instructor.

Students will become familiar with geophysical instrumentation used for both scientific and industrial applications. Students will be given an introduction to the use of geophysical instrumentation for data collection, processing, and analysis, design of field experiments for investigating field geophysical problems, and an introduction to the theory of instrument design and use. Instruments that will be covered include (but are not limited to): broadband seismometers, geophones, ground-penetrating radar, magnetotellurics, and Global Positioning Satellites.

0101	Nicholas Schmerr	Seats (Total: 15)
	M 10:00am - 1:50pm	PLS 1168

GEOL488 Geology Colloquium; Geology Colloquium

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Megan Newcombe	Seats (Total: 30)
	F 3:00pm - 4:00pm	PLS 1140

GEOL499 **Special Problems in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. In addition, non-degree-seeking students require the permission of the instructor. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

Contact department for information to register for this course.

GEOL636 **Ecosystem Restoration**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH120 or MATH140; and (CHEM131 or CHEM135); and (CHEM132 or CHEM136); and (GEOL100, GEOL120, or ENST200). Restriction: Equal preference is given to students enrolled in GEOL, MEES, CONS, ENST, AOSC, and civil and environmental engineering graduate programs; and permission of Instructor required for non degree seeking students. Credit only granted for: GEOL453 or GEOL489L. Formerly: GEOL489L.

A further understanding of ecosystem functions across biomes/geologic settings, and developing practical applications in ecosystem restoration strategies through a graduate level project. Specific case studies and discussions will be aimed at understanding how structure can influence biophysical and biogeochemical processes supporting ecosystems, and then describes how rates, timing, and location of physical, chemical, and ecosystem processes can be altered by different restoration strategies to enhance ecosystem services. A project will then be used to apply restoration principles towards solving tangible environmental problems and communication to managers.

0101	Sujay Kaushal	Seats (Total: 20)
	Tu 3:30pm - 6:30pm	PLS 1168

GEOL650 **Isotope and Trace Element Geochemistry**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: GEOL443; or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Trace elements and isotopes in geology, including modern applications in geochronology and petrogenesis.

0101	Richard Walker TuTh 8:00am - 9:15am	Seats (Total: 10) PLS 1158

GEOL652 **Advanced Watershed and Wetland Hydrology**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: GEOL452; or permission of CMNS-Geology department. Restriction: Non-degree-seeking students require the permission of the instructor.

Physical and chemical processes in watershed and wetland systems: with an emphasis on redox reactions.

0101	Karen Prestegaard TuTh 3:30pm - 4:45pm	Seats (Total: 9) SPH 0308

GEOL670 **Physical Oceanography**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of CMNS-Atmospheric & Oceanic Science department; or permission of CMNS-Geology department. Cross-listed with: AOSC670. Credit only granted for: GEOL670, AOSC670 or AOSC420.

Ocean observations. Water masses, sources of deep water. Mass, heat, and salt transport, geochemical tracers. Western boundary currents, maintenance of the thermocline. Coastal and estuarine processes. Surface waves and tides. Ocean climate.

0101	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 11) ATL 2416
AM01	Jacob Wenegrat TuTh 2:00pm - 3:15pm	Seats (Total: 1) ATL 2416

GEOL671 **Analytical Methods in Mineralogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: CHEM471. Restriction: Non-degree-seeking students require the permission of the instructor.

An intensive study in the operation and application of instrumentation in mineralogical problems. Emphasis on designing and testing methods of analysis for use in the student's research problems in geology.

An intensive study in the operation and application of instrumentation in mineralogical problems. Emphasis on designing and testing methods of analysis for use in the student's research problems in geology.

0101	William McDonough	Seats (Total: 7)
	TuTh 3:30pm - 4:45pm	PLS 1162

GEOL688 **Geology Colloquium; Geology Colloquium**

Credits: 1 Grading Method: Sat-Fail

Contemporary research topics and issues in geosciences are explored through the weekly Geology departmental colloquium and discussion of its contents.

0101	Megan Newcombe	Seats (Total: 30)
	F 3:00pm - 4:00pm	PLS 1140

GEOL789A **Recent Advances in Geology; Current Topics in Volcanology**

Credits: 3 Grading Method: Regular, Audit

Recent advances in geology research.

Overview of volcanology with an emphasis on geochemical and geophysical signals of volcanic unrest.

0101	Megan Newcombe	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	KEY 0117

GEOL789E **Recent Advances in Geology; Active Tectonics**

Credits: 2-4 Grading Method: Regular, Audit, Sat-Fail

Recent advances in geology research.

0101	Mong-Han Huang	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	MTH B0431

GEOL798 **Seminar in Geology**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Discussion of special topics in current literature in all phases of geology.

Contact department for information to register for this course.

GEOL799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GEOL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

GEOL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GERM Germanic Studies Fall 2022

GERM103 **Intensive Elementary German**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERS103 or GERM103. Formerly: GERM103.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	John Daigle	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	JMZ 3120
	Class time/details on ELMs	ONLINE

GERM148Y **Germanic Languages - Elementary I; Yiddish I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Basic instruction in a Germanic language other than German; Yiddish and Swedish are offered regularly, Danish, Netherlandic, and Norwegian when demand is sufficient. Subtitle will reflect the language. May be repeated in a different language.

Cross-listed with JWST281. Credit only granted for JWST281 or GERM148Y. This is a Big-Ten Academic Alliance Course-Share Course. Introduction to the Yiddish language, with emphasis on speaking, reading, and writing skills. Students will also learn the history of the language, its significance to Jewish culture, its origins and basic structure.

0101	Adi Mahalel	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 2125

GERM203 **Intensive Intermediate German**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: GERS103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM203 or GERS203. Formerly: GERM203.

Covers speaking, reading, writing, listening, and culture of German-speaking world.

0101	Nicholas Brazones	Seats (Total: 25)
	MWF 11:00am - 11:50am Class time/details on ELMs	JMZ 1224 ONLINE

GERM204 **German Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: GERS203; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a fluent/native speaker of German. Credit only granted for: GERM204 or GERS204. Formerly: GERM204.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Regina Haag	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 1117

GERM269A **Special Topics in Study Abroad II; Elementary German I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM269B **Special Topics in Study Abroad II; Elementary German II**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM301 **Conversation and Composition I: The German-Speaking World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS204; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM301 or GERS301. Formerly: GERM301.

Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts in the German-speaking world.

0101	Regina Haag	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 1122

GERM302 **Conversation and Composition II: Current Topics in German-Speaking Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GERS301; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM302 or GERS302. Formerly: GERM302.

Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

0101	Regina Haag	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 1215

GERM319G **Selected Topics in German Language Studies; Seminar in German Language**

Credits: 3 Grading Method: Regular

The analysis of the German language as a reflection of cultural, functional, and social practice in the German-speaking world.

Contact department for information to register for this course.

GERM322 **Highlights of German Literature and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: GERS302; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM322 or GERS322. Formerly: GERM322.

Selected literary masterworks, social and cultural issues, and historical events in German-speaking countries from the Enlightenment, Romanticism, Junges Deutschland, Realism, Naturalism and its counter currents, Expressionism to the present. Taught in German.

Taught in German. Cross-listed with GERM322H.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 0208

GERM322H **Highlights of German Literature and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: GERS302; or students who have taken courses with comparable content may contact the department. Credit only granted for: GERM322 or GERS322. Formerly: GERM322.

Selected literary masterworks, social and cultural issues, and historical events in German-speaking countries from the Enlightenment, Romanticism, Junges Deutschland, Realism, Naturalism and its counter currents, Expressionism to the present. Taught in German.

Taught in German. Cross-listed with GERM322.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 0208

GERM369C **Special Topics in Study Abroad III; German Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369D **Special Topics in Study Abroad III; German Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369K **Special Topics in Study Abroad III; Introduction to German Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369M **Special Topics in Study Abroad III; Europeans and the Middle East: War & Peace, Culture and Exchange, 1798-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM369P **Special Topics in Study Abroad III; Pop Culture: European-American Trends**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GERM386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher. Credit only granted for: GERM386 or GERS386. Formerly: GERM386.

Internship and practicum.

Contact department for information to register for this course.

GERM389F **Topics in German Culture; Berlin: History, Memory, Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the cultures of the German-speaking peoples. Taught in English.

Contact department for information to register for this course.

GERM389G **Topics in German Culture; German American Cultural Contrasts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the cultures of the German-speaking peoples. Taught in English.

Contact department for information to register for this course.

GERM397H **Honors Reading (Independent Study)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: GERM397 or GERS397. Formerly: GERM397.

Supervised reading to be taken normally only by students admitted into honors program.

Contact department for information to register for this course.

GERM399F **Selected Topics in German Studies; The Human Condition and the Totalitarian Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics on the language, literature, and culture of the German-speaking world.

Contact department for information to register for this course.

GERM411 **German for International Business I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced skills in German for international business, including understanding and writing correspondence, reports, graphics, ads, etc., according to current German commercial style.

Contact department for information to register for this course.

GERM439J **Selected Topics in German Literature; Introduction to the History of the German Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special study of an author, school, genre, or theme. Taught in German.

Contact department for information to register for this course.

GERM439K **Selected Topics in German Literature; Future Tense: Speculative Visions in Contemporary German Literature and Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special study of an author, school, genre, or theme. Taught in German.

Cross-listed with GERM689K. Credit only granted for GERM439K or GERM689K. This seminar investigates how literature and film can help us speculate on the future and imagine more just worlds. We will consider how German-language writers and filmmakers respond to the precarity caused by neoliberal capitalism, climate change, biopolitics, colonialism, and racist violence by offering alternative and resistant visions that help us to think through the problems of the present. Taught in German.

0101	Hester Baer	Seats (Total: 20)
	W 4:00pm - 6:45pm	JMZ 3205

GERM439U **Selected Topics in German Literature; The Brecht Provocation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special study of an author, school, genre, or theme. Taught in German.

Cross-listed with GERM689U. Credit only granted for GERM439U or GERM689U. This course closely examines the plays, poetry, and theoretical writings of Bertolt Brecht (1898-1956) in the Weimar Republic and in exile from Nazi Germany. Readings and viewings also situate Brecht's work in a global context, including his sources (Japanese Noh theater, Grimmelshausen, John Gay, Mei Lanfang), his interlocuters (Aristotle, Walter Benjamin, Asja Lacis), and his successors (Rhitwik Ghatak, Jean-Luc Godard, Nagisa Oshima, Wolf Biermann). Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 1120

GERM499 **Directed Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Student-driven, independent study of a specialized topic in coordination with a faculty advisor.

Contact department for information to register for this course.

GERM689K **Special Topics - M.A. Level; Future Tense: Speculative Visions in Contemporary German Literature and Film**

Credits: 3 Grading Method: Regular, Audit

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

Cross-listed with GERM439K. Credit only granted for GERM439K or GERM689K. This seminar investigates how literature and film can help us speculate on the future and imagine more just worlds. We will consider how German-language writers and filmmakers respond to the precarity caused by neoliberal capitalism, climate change, biopolitics, colonialism, and racist violence by offering alternative and resistant visions that help us to think through the problems of the present. Taught in German.

0101	Hester Baer	Seats (Total: 20)
	W 4:00pm - 6:45pm	JMZ 3205

GERM689U **Special Topics - M.A. Level; The Brecht Provocation**

Credits: 3 Grading Method: Regular, Audit

M.A.-level study of a literary, linguistic or cultural topic in German or Germanic studies.

Cross-listed with GERM439U. Credit only granted for GERM439U or GERM689U. This course closely examines the plays, poetry, and theoretical writings of Bertolt Brecht (1898-1956) in the Weimar Republic and in exile from Nazi Germany. Readings and viewings also situate Brecht's work in a global context, including his sources (Japanese Noh theater, Grimmelshausen, John Gay, Mei Lanfang), his interlocuters (Aristotle, Walter Benjamin, Asja Lacis), and his successors (Rhitwik Ghatak, Jean-Luc Godard, Nagisa Oshima, Wolf Biermann). Taught in German.

0101	Josh Alvizu	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	JMZ 1120

GERM798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

GERM799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GERM888 **Doctoral Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

GERM898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

GERM899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GREK Greek Fall 2022

GREK101 **Elementary Ancient Greek I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Restriction: A student who has had two units of Greek in high school may register for GREK101 for purposes of review but not for credit.

Study of basic grammar, development of reading facility, and introduction to Athenian life and culture in the fifth century B.C.

Classical and New Testament Greek.

0101	Gregory Bucher	Seats (Total: 10)
	MWF 2:00pm - 2:50pm	ONLINE
	W 1:00pm - 1:50pm	ONLINE

GREK111 **Elementary Modern Greek I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not be a native speaker of Greek. Credit only granted for: FOLA108G or GREK111. Formerly: FOLA108G.

An introduction to the language and culture of modern Greece. Students begin to acquire the basic tools of the language and to communicate, in simple everyday situations. This is the first of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara	Seats (Total: 15)
	MWF 12:00pm - 12:50pm	MMH 1218

GREK201 **Intermediate Ancient Greek**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK102; or students who have taken courses with comparable content may contact the department.

Advancing beyond the basic skills developed in GREK 101 and GREK 102; review of selected grammatical concepts; continuous reading of passages from Greek literature.

0101	Lillian Doherty	Seats (Total: 5)
	MWF 10:00am - 10:50am	HBK 1112
	W 9:00am - 9:50am	HBK 1112

GREK211 **Intermediate Modern Greek I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GREK112; or permission of instructor. Credit only granted for: FOLA118G or GREK211. Formerly: FOLA118G.

A continuation of the study of basic structures and the development of fluency in functional, spoken and written communication. This is the first of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the Global Engagement requirement of the College of Arts and Humanities.

0101	Polyvia Parara MWF 10:00am - 10:50am	Seats (Total: 5) MMH 1218

GREK398 **Advanced Modern Greek**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Develops advanced communication skills in the modern Greek language: speaking, listening, reading, and writing.

0101	Polyvia Parara MWF 11:00am - 11:50am	Seats (Total: 5) MMH 1218

GREK415 **Homer**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-Classics department.

Extensive readings in Greek from the Iliad or the Odyssey, with special attention to the features of Homeric style and the relationship between the two epics.

0101	Lillian Doherty M 5:00pm - 7:40pm	Seats (Total: 5) KEY 0119

GREK488 **Greek Readings**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Greek authors. Reports.

0101	Lillian Doherty MWF 10:00am - 10:50am W 9:00am - 9:50am	Seats (Total: 5) HBK 1112 HBK 1112

GREK499 **Independent Study in Greek Language and Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

GREK604 **Homer**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

The extensive and intensive reading of Homer, with concentration on one of his two epics. Discussion of the language, artistic qualities, and thought of the poems, and of modern views concerning their orgin and literary qualities.

0101	Lillian Doherty M 5:00pm - 7:40pm	Seats (Total: 7) KEY 0119	

GREK699 **Independent Study in Greek Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

GREK799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT Government and Politics Fall 2022

GVPT101 **Introduction to Political Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

A study of the basic principles and concepts of political science.

Contact department for information to register for this course.

GVPT170 **American Government**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

A comprehensive study of national government in the United States.

0101	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) KEY 0106 TYD 0111	Discussion
0102	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) KEY 0106 TYD 1102	Discussion
0103	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) KEY 0106 TYD 0111	Discussion
0104	Patrick Wohlfarth MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) KEY 0106 TWS 1107	Discussion

0105	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) KEY 0106 TWS 1321	Discussion
0106	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) KEY 0106 TYD 1101	Discussion
0107	Patrick Wohlfarth MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) KEY 0106 JMZ 3120	Discussion
0108	Patrick Wohlfarth MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) KEY 0106 TYD 2109	Discussion
0109	Patrick Wohlfarth MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) KEY 0106 TYD 0102	Discussion
FC01	Florian Gawehns MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 1102	

GVPT200 **International Political Relations**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DVUP

A study of the major factors underlying international relations, the causes of conflict and cooperation among international actors, the role of international institutions, the interactions of domestic and foreign policies, and major issues in security, economy and the environment.

0101	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 2102	Discussion
0102	Todd Allee MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 2111	Discussion

0103	Todd Allee MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 1132	Discussion
0104	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0105	Todd Allee MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 0130 TYD 1108	Discussion
0106	Todd Allee MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 2111	Discussion
0107	Todd Allee MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 0130 TYD 1102	Discussion
0108	Todd Allee MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) TYD 0130 TYD 0101	Discussion
0109	Todd Allee MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 25) TYD 0130 TYD 0101	Discussion
FC01	Ryan Frazier TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TYD 1102	

GVPT201 Scope and Methods for Political Science Research

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Credit only granted for: GVPT100 or GVPT201. Formerly: GVPT100.

An introduction to empirical research in political science.

0101	Sarah Croco MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 25) TYD 1102 TYD 0102	Discussion

0102	Sarah Croco MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) TYD 1102 TYD 0111	Discussion
0103	Sarah Croco MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) TYD 1102 TYD 0101	Discussion
0201	Sarah Croco MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 1101	Discussion
0202	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 1101	Discussion
0203	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 1118	Discussion
0204	Sarah Croco MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 TYD 2111	Discussion
0205	Sarah Croco MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 TYD 1118	Discussion
0206	Sarah Croco MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 1132	Discussion

GVPT202 **Politics, Constitutional Policy, and the Institution of the U.S. Supreme Court**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

A thorough examination of the U.S. Supreme Court in the American political system. Focusing on the Court as an institution-the set of norms, rules, and policymaking processes that lead to the Supreme Court's decisions-and how justices' decision-making processes critically determine substantive legal policy and the meaning of the U.S. Constitution.

0101	Patrick Wohlfarth MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) JMZ 0220 LEF 1201	Discussion
0102	Patrick Wohlfarth MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 LEF 1201	Discussion
0103	Patrick Wohlfarth MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) JMZ 0220 TYD 1108	Discussion
0104	Patrick Wohlfarth MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 20) JMZ 0220 TYD 0101	Discussion
0105	Patrick Wohlfarth MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 20) JMZ 0220 LEF 2166	Discussion
0106	Patrick Wohlfarth MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 20) JMZ 0220 KNI 1105	Discussion

GVPT204 **Uncertain Partners: US and China in a Changing World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: GVPT204 or GVPT289J. Formerly: GVPT289J.

The rapid ascent of the People's Republic of China (PRC) as a major political and economic power has meant that its relationship with the United States has become central in contemporary international politics. To an increasing extent, some of the biggest global challenges--ranging from nuclear proliferation, to climate change, to economic growth--require U.S.-China cooperation if they are to be managed effectively. Yet the U.S.-China relationship is at times turbulent, and its future remains highly uncertain. Will the U.S. and China be able to forge a closer partnership that will enable them to cooperate in dealing with some of the vexing challenges facing the international community? Or are they more likely to drift toward a more adversarial relationship, as China's growing power--and the US reaction--generate a vicious cycle of mutual mistrust? In this class, students will grapple with these questions as they learn about the history of U.S.-China relations, and about many of the current issues facing the relationship.

0101	Scott Kastner MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) LEF 2205 ASY 3203	Discussion
0102	Scott Kastner MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 EDU 3315	Discussion
0103	Scott Kastner MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 EDU 2102	Discussion
0104	Scott Kastner MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 20) LEF 2205 EDU 3233	Discussion
0105	Scott Kastner MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 20) LEF 2205 ASY 3221	Discussion
0106	Scott Kastner MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 20) LEF 2205 KEY 0121	Discussion

GVPT217 **Mock Trial**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: MLAW217. Credit only granted for: MLAW217, GVPT217, or GVPT319A. Formerly: GVPT319A.

Experience the excitement and reward of arguing, and perhaps winning your client's case in court. Mock Trial is designed for students who are interested in learning practical techniques for shaping the evidence, using the law, and exploiting the courtroom to create a coherent and convincing case theory.

Click here for course permission.

0101	William Mundy W 6:30pm - 9:15pm	Seats (Total: 40) TYD 1114

GVPT241 **The Study of Political Philosophy: Ancient and Modern**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

0101	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 JMZ 0205	Discussion
0102	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 JMZ 0205	Discussion
0103	Sujith Kumar TuTh 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 25) LEF 2205 JMZ 1122	Discussion
0104	Sujith Kumar TuTh 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 25) LEF 2205 JMZ 1120	Discussion
0105	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 1108	Discussion
0106	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 1114	Discussion
0107	Sujith Kumar TuTh 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 25) LEF 2205 TYD 0111	Discussion
0108	Sujith Kumar TuTh 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 25) LEF 2205 TYD 2111	Discussion
FC01	Sujith Kumar TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 31) TYD 2109	

GVPT258B **Introduction to Political Science Topics in Study Abroad; Enemy Within: Spies and Espionage in the Cold War**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258C **Introduction to Political Science Topics in Study Abroad; Government and Politics in China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258D **Introduction to Political Science Topics in Study Abroad; Danish Politics and Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258E **Introduction to Political Science Topics in Study Abroad; Government and Politics in Spain**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258F **Introduction to Political Science Topics in Study Abroad; European Union Law and Economic Integration**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258I **Introduction to Political Science Topics in Study Abroad; Government and Politics in Italy and Europe**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258N **Introduction to Political Science Topics in Study Abroad; Arms Control in the Nuclear Realm**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258P **Introduction to Political Science Topics in Study Abroad; Sustainable Development: Environmental, Political and Social Issues**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258R **Introduction to Political Science Topics in Study Abroad; Peace and Conflict Honors Seminar II: Regional Conflicts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT258T **Introduction to Political Science Topics in Study Abroad; Terrorism and Political Violence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science taken as part of an approve study abroad program.

Contact department for information to register for this course.

GVPT273 **Introduction to Environmental Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An overview of modern environmental philosophy, politics, and policy, exploring environmental politics in the US by way of comparison with other developed and developing countries.

FC01	Matthew Regan	Seats (Total: 40)
	MW 4:30pm - 5:45pm	TYD 1118
	Restricted to students in Freshmen Connection.	

GVPT280 **The Study of Comparative Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the comparative study of politics and governance, including the analytical concepts for studies of politics and a survey of the major types of regimes, including democratic and authoritarian/communist regimes.

0101	Marcus Johnson	Seats (Total: 120)
	TuTh 11:00am - 12:15pm	MMH 1400

GVPT289B **Special Topics in Government and Politics; Globalization**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT289U **Special Topics in Government and Politics; Political Comedy: How Laughter Shapes Political Discourse**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

An introduction to various forms of political comedy and its sociopolitical impact in the past and present.

0101	John McCauley M 11:00am - 11:50am	Seats (Total: 20) TLF 1103

GVPT289X **Special Topics in Government and Politics; Introduction to European Union**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

Contact department for information to register for this course.

GVPT301 **Identity and Conflict**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DVCC

An examination of identity as a source of civil conflict. The course explores how identity is embedded in context, how identity is manipulated for political ends, and how identity conflict may be resolved.

0101	Henry Overos Tu 7:00pm - 9:45pm	Seats (Total: 30) TYD 1108

GVPT306 **Global Environmental Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; or permission of BSOS-Government & Politics department.

Focus on three processes of international environmental policy development- identifying problems, negotiating solutions, and implementing agreements- through a range of case studies, including global climate change.

Restriction: Must be in Government & Politics program, Government & Politics: International Relations program, or ENSP: Environmental Politics & Policy program.

This is a GVPT Global Learning offering. For more information click here.

0101	Conny Kazungu Sigel MW 2:00pm - 3:15pm	Seats (Total: 30) TYD 1132

GVPT309H **Topics in International Relations; British Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in international relations.

Contact department for information to register for this course.

GVPT319L **Topics in Social Advocacy; Legal Advocacy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, research and discussion of variety of topics related to social advocacy.

ESG1	James Trusty	Seats (Total: 40)
	Th 6:30pm - 9:00pm	ONLINE
	Restricted to CCJS students at Shady Grove.	

GVPT320 **Advanced Empirical Research**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT201. Restriction: Must be in Government & Politics or Government & Politics: International Relations program.

Allows students to build on the knowledge of statistical inference they gained from GVPT201. Topics include data collection, data cleaning, data analysis, and data visualization. By the time students complete this class, they will be able to do basic statistical modeling using OLS regression independently.

Students will be required to download statistical package R onto their own laptops and must bring their laptop to every class meeting beginning on October 4.

0101	Candace Turitto	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TYD 0111

GVPT354 **International Development and Conflict Management**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher; and must be in one of the following minor programs (International Development and Conflict Management; Global Engineering Leadership; Global Poverty, Global Terrorism Studies) and have permission of the Center for International Development, or must be in the Government and Politics major with permission of the Government and Politics department. Additional information: Students enrolled in MIDCM are expected to take the course during the Fall semester after admission to the program.

Serves as the gateway course for the Minor in International Development and Conflict Management. Provides an introductory foundation in the theory and practice of international development and conflict management. Introduces the structures, key players, intersections, and main trends in the evolution of the fields. Explores causal factors that drive economic growth, poverty, inequality, and conflict, as well as the resources, methods, and tools available to track and address these issues.

0101	John McCauley W 2:00pm - 3:40pm F 9:00am - 9:50am	Seats (Total: 16) TWS 0320 EDU 3315	Discussion
	Restricted to students in the #BS02 program.		
0102	John McCauley W 2:00pm - 3:40pm F 10:00am - 10:50am	Seats (Total: 16) TWS 0320 JMZ 2117	Discussion
	Restricted to students in the #BS02 program.		
0103	John McCauley W 2:00pm - 3:40pm F 12:00pm - 12:50pm	Seats (Total: 16) TWS 0320 TYD 1114	Discussion
	Restricted to students in the #BS02 program.		
0104	John McCauley W 2:00pm - 3:40pm F 9:00am - 9:50am	Seats (Total: 9) TWS 0320 EDU 3315	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		
0105	John McCauley W 2:00pm - 3:40pm F 10:00am - 10:50am	Seats (Total: 9) TWS 0320 JMZ 2117	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		
0106	John McCauley W 2:00pm - 3:40pm F 12:00pm - 12:50pm	Seats (Total: 9) TWS 0320 TYD 1114	Discussion
	Open to all majors. Contact MIDCMinfo@umd.edu for permission to register.		

GVPT356 **Capstone in International Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP, DVCC

Prerequisite: GVPT354. Restriction: Enrollment is restricted to students in the Minor in International Development and Conflict Management; and sophomore standing or higher; and permission of BSOS-Government & Politics department.

Serves as one of the two capstone courses for the Minor in International Development and Conflict Management. Focuses on advanced theory and the practice and profession of international development and is designed to provide students an introduction to, and a chance to engage with, a core set of practical skills relevant to the field.

0101	Stacy Kosko	Seats (Total: 31)
	M 2:00pm - 4:45pm	VMH 1203

GVPT358A **Study Abroad Seminar in Political Science; Migration and Multiculturalism in Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358D **Study Abroad Seminar in Political Science; Politics and Economy of Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358F **Study Abroad Seminar in Political Science; Government and Politics in France**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358M **Study Abroad Seminar in Political Science; Political Rhetoric**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358P **Study Abroad Seminar in Political Science; Political Rhetoric: Blogs, Speeches, and Spin**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT358R **Study Abroad Seminar in Political Science; Religion and Politics in Europe**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in political science.

Contact department for information to register for this course.

GVPT368B **Special Topics in Government and Politics; The United States and Israel: Likely or Unlikely Allies?**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listing with ISRL329N. Credit only granted for ISRL329N or GVPT368B. An examination of the U.S. - Israel relationship through historical and thematic lenses. Stretching from the pre-state era through the post-Col War alliance and the intensive U.S. role mediating Arab-Israeli peace, which covers nearly a century of U.S. foreign policy. It will include domestic sources that have shaped U.S. policy, including public opinion and conclude by examining scenarios for increased cooperation and managing tension in the relationship.

0101	Scott Lasensky	Seats (Total: 35)
	Tu 4:00pm - 6:30pm	TYD 1118

GVPT368D **Special Topics in Government and Politics; Israel: Politics and Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listing with ISRL329C. Credit granted for ISRL329C or GVPT368D. This course will address the main issues in Israeli politics and society by focusing on the role of Zionism in the Jewish state, the institutional foundations of Israeli democracy, the main political parties and blocs and their different ideological principles and visions, as well as the main social groups, movements, and institutions that comprise Israeli civil society.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	HJP 2217

GVPT368E **Special Topics in Government and Politics; Israeli Foreign and Security Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The study of topics in government and politics.

Cross-listing with ISRL329P. Credit only granted for ISRL329P or GVPT368E. This course will provide an overview of Israeli foreign and security policy from 1948 to the present. We will examine how Israel's foreign and security policies reflect its Jewish origins, Zionist ideology, its relations with its neighbors and world powers, and its regional quest for recognition and legitimacy.

0101	Ilai Saltzman TuTh 2:00pm - 3:15pm	Seats (Total: 35) PLS 1119

GVPT376 **Applied Field Research in Government and Politics**

Credits: 3-6 Grading Method: Sat-Fail

Prerequisite: GVPT170. Corequisite: GVPT377.

Students in this course participate as interns in an agency of government or in some other appropriate political organization. Assignments are arranged to provide students with insights into both theoretical and practical aspects of politics. Under the tutelage of the host agency and an academic advisor, students conduct a major research project of mutual interest to the student and his or her host agency in the field of government and politics.

Contact department for information to register for this course.

GVPT377 **Experiential Learning: Government and Politics Internship Program**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170. Credit only granted for: GVPT377 or GVPT388W. Formerly: GVPT388W.

The application of major concepts of political science to the realities of the political process. The course connects internship experiences with larger themes of political science. Students must be admitted to the GVPT Internship Program.

Students interested in registering for this course must have an internship secured and must apply to the GVPT Internship Program. Required in-person class meetings will take place in KEY 0116 from 6:30pm-9:15pm on the following Wednesdays: September 21st, October 26th, and November 30th.

Click here for more course information.

0101	Candace Turitto Class time/details on ELMs W 6:30pm - 9:15pm	Seats (Total: 40) ONLINE Location: TBA

GVPT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Government & Politics department; and junior standing or higher.

Contact department for information to register for this course.

GVPT388 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Permission of Director of Undergraduate Studies required.

Contact department for information to register for this course.

GVPT388B **Topical Investigations; Innovation in the Public Sector**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

Prerequisite: PSYC100 or ECON200. Cross-listed with BSOS388F. Credit will be granted for BSOS388F or GVP 388B. Restricted to GVPT majors.

0101	Kenneth Ulman, Bradley Fallon	Seats (Total: 20)
	W 4:00pm - 6:30pm	CHI 2113

GVPT388M **Topical Investigations; Mock Trial**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Independent research and writing on selected topics in government and politics.

0101	William Mundy	Seats (Total: 40)
	W 6:30pm - 9:15pm	TYD 1108

GVPT389 **Experiential Learning II**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Experiential credit for working in government & politics related internships, research, and teaching opportunities.

Junior standing.

Contact department for information to register for this course.

GVPT390 **Game Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not have completed ECON414. Credit only granted for: GVPT399A, GVPT390, CMSC474 or ECON414. Formerly: GVPT399A.

Introduction to game theory with applications to political science, economics and sociology. Topics include preference theory, expected utility theory, Nash equilibria, subgame perfection, repeated games, folk theorems, and evolutionary stability.

0101	Piotr Swistak	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 1102

GVPT396 **Introduction to Honors Research**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Government & Politics Honors Program; and must have permission of the Government & Politics Honors Program.

A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

Contact department for information to register for this course.

GVPT397 **Honors Research**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: GVPT396. Restriction: Must be in Government & Politics Honors Program.

Individual reading and research. Preparation of an original paper.

Contact department for information to register for this course.

GVPT399C **Seminar in Government and Politics; The Case of Catalonia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399D **Seminar in Government and Politics; Society and Politics in Contemporary Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399I **Seminar in Government and Politics; Globilization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399L **Seminar in Government and Politics; British Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399N **Seminar in Government and Politics; Political Movements in the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT399X **Seminar in Government and Politics; Political Movements in the European Union**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

Contact department for information to register for this course.

GVPT404 **Political Economy of Foreign Aid**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: GVPT200. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Credit only granted for: GVPT409R or GVPT404. Formerly: GVPT409R.

The world spends hundreds of billions of dollars on foreign aid every year. The effects of this aid spending are controversial. Research supports both pessimistic and optimistic views of foreign aid's effectiveness, with little consensus. Where does aid money go? What are the motivations of aid donors? Is foreign aid effective at achieving its goals? Why or why not? This course is designed to survey the promise and the challenges of foreign aid as a policy tool. The first half of the course will focus on the motivations and goals of foreign aid. We will consider various foreign aid donors, such as countries, institutions, and individuals, to understand the motivations behind and effects of foreign aid. We will create a typology of foreign aid agendas, motivations, and donors. The second half of the course will consider the challenges specific to foreign aid. This includes both technical challenges and political challenges. We will consider the strategies that aid donors and organizations have taken to try to overcome these challenges.

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 2109

GVPT406 **International Organizations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

0101	Todd Allee	Seats (Total: 30)
	MW 3:30pm - 4:45pm	TYD 1114

GVPT409A **Seminar in International Relations and World Politics; Peace and Conflict Processes**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisite: GVPT200. Restriction: Must be in Government & Politics program. How do we conceptualize conflict? Why do armed actors fight and how do they fight? What are the ways in which conflicts end? This course focuses on the central concepts in peace and conflict research and the key theoretical assumptions on the causes, dynamics, and resolution of armed conflict. We begin by examining the root causes of interstate and intrastate conflicts. Close attention will be paid to identifying the armed actors and understanding how they strategically interact with each other. We then turn to the various ways in which armed actors resolve their conflict and achieve peace. We will explore and assess the effectiveness of bilateral and and multilateral approaches of conflict management and the role of third-party actors such as international organizations, mediators, and peacekeepers in bringing about peace.

0101	Hyunki Kim	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ARC 1105

GVPT409V **Seminar in International Relations and World Politics; Game Theory And International Security**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Contact department for information to register for this course.

GVPT409W **Seminar in International Relations and World Politics; Southeast Asia in Contemporary Global Politics**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Southeast Asia, home to three major religious cultures and various regime types, is one of the most politically and socially diverse regions of the world. While the region is unique for its diversity, its states face challenges that are common in other parts of the world including globalization; adjusting to the new geopolitical landscape of rising global powers; and external pressure to improve the standards of human rights, the environment and democracy. Given this dynamic political context, this course is designed to give students a greater understanding of the problems and prospects of the region, as well as the ability to assess its efforts to adapt to the changing regional and international environment.

0101	Jennifer Wallace	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	TYD 2102

GVPT417 **Seminar in Advanced Topics in Environmental Policy Analysis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT273. Restriction: Must be in one of the following programs (Government & Politics; Environmental Sci&Policy-Env Politics & Policy). Credit only granted for: GVPT419B or GVPT417. Formerly: GVPT419B.

A series of critical tools and methods used to analyze environmental policy. This class should be of interest to students who are either considering a career or graduate studies in environmental protection.

0101	Conny Kazungu Sigel	Seats (Total: 30)
	MW 1:00pm - 1:50pm	TYD 2102
	Class time/details on ELMs	ONLINE

GVPT419P **Seminar in Public Policy; Applied Policy Research**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public policy. Both substantive issues and methodological approaches will be considered.

Recommended prerequisite: GVPT320. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. In this course students will learn how to apply theories of public polic y and evaluate policy effectiveness. Students will examine several policy areas and consider the challenges faced both in implementation and in attempts to evaluate policy outcomes. Students will collect and analyze data related to a policy area of their choice and derive assessments and recommendations from the data. By the end of the course students will have a better understanding of the policy implementation process and of the skills necessary to find evidence for whether or not policy is successful.

0101	Richard Engstrom MW 2:00pm - 3:15pm	Seats (Total: 20) ESJ 1309

GVPT423 **Elections and Electoral Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

An examination of various topics relating to elections; the focus includes the legal structure under which elections are conducted, the selection and nomination process, the conduct of election campaigns, and patterns of political participation and voting choice in different types of elections.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program.

0101	James Gimpel Tu 2:00pm - 4:45pm	Seats (Total: 30) TYD 1114

GVPT429D **Problems in Political Behavior; Theory and Practice of Decision Making**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The problem approach to political behavior with emphasis on theoretical and empirical studies on selected aspects of the political process.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This class covers normative theories of individual and group decision-ma king. Theoretical results are compared with experimental data to identify common decision errors. Cases and applications are drawn from all social sciences.

0101	Piotr Swistak TuTh 3:30pm - 4:45pm	Seats (Total: 30) TYD 0101

GVPT431 **Introduction to Constitutional Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT170 and GVPT331. Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; and junior standing or higher.

A systematic inquiry into the general principles of the American constitutional system, with special reference to the role of the judiciary in the interpretation and enforcement of the federal constitution.

Jointly offered with MLAW358X. Credit only granted for GVPT431 or MLAW358X.

0101	Martin Kobren	Seats (Total: 70)
	MW 2:00pm - 3:15pm	MCB 1207

GVPT439A **Seminar in Public Law; Comparative Constitutional Law**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. Introduction to basic issues of constitutional law in a global and comparative perspective. Topics: constitution making and amending, enforcing, suspending, and reasoning with constitutions. Federalism and separation of powers. Fundamental rights. Constitutionalism outside the West. Constitutions beyond states. In this course the US Constitution will notbe discussed.

0101	Karol Soltan	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	LEF 2166

GVPT439B **Seminar in Public Law; First Amendment: Free Speech, Religion, and the Constitution**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. Prerequisite: GVPT431 or GVPT432. Credit only granted for GVPT439B or MLAW358F. The purpose of this course is to explore the various facets of the First Amendment. Why protect speech and the practice of religion? Are these "special?" What is speech? What is religion? Do rights to speech and religion trump other rights? In this course, we will examine various "types" of speech and their relationship to the First Amendment as well as the religion provisions of the First Amendment: the Free Exercise Clause and the Establishment Clause.

0101	Michael Spivey	Seats (Total: 30)
	MW 1:00pm - 2:15pm	TYD 1118

GVPT439M **Seminar in Public Law; Moot Court**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in public law. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisites: GVPT431, GVPT432, and GVPT439B. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. This is your chance to argue a case before the Supreme Court. (Well, Not THE Supreme Court but a moot Supreme Court.) In Moot Court, students argue a hypothetical constitutional law case before a panel of experienced lawyers and jurists. Students will learn the skills of written and oral advocacy in anticipation of participation in the American Moot Court Association regional and national competitions. No prior experience in appellate advocacy is necessary.

0101	Michael Spivey	Seats (Total: 20)
	MW 3:00pm - 4:15pm	TYD 1102

GVPT443 **Contemporary Political Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241. Restriction: Must be in Government & Politics program.

A survey of the principal political theories and ideologies set forth in the works of writers from Karl Marx to the present.

Contact department for information to register for this course.

GVPT449A **Seminar in Political Philosophy; Social Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

This course is a critical review of the major theories of social justice that have emerged from the history of Western political thought. It begins by presenting the dominant strain of liberalism underpinning Western Democracies. It then surveys challenges raised by the disparate experiences of women, people of color, and other historically marginalized groups. The course concludes by considering the future when white Americans will be a minority, and the implications for culture and traditional social norms.

0101	Sujith Kumar	Seats (Total: 30)
	M 3:15pm - 6:00pm	TYD 1101

GVPT449D **Seminar in Political Philosophy; Individual and Group Decision-Making**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: Inter national Relations program. Credit granted for PHPE400 or GVPT449D. Foundational issues that arise within the theories of rational choice that underlie the treatments of decision-making found in economics, politics, and the other social sciences. The course is focused on individual decisions (rational choice theory), strategic decisions (game theory) and group decisions (social choice theory). In addition to presenting the formal models of decision making, we also discuss to what extent these mathematical theories explain social interactions. An important aspect of the course is to introduce students to the ways in which economic analysis has been applied to issues in social and political philosophy. Readings will be drawn from the literature in economics, psychology, statistics and political science, as well as philosophy.

0101	Eric Pacuit	Seats (Total: 6)
	MW 11:00am - 12:15pm	SQH 1117

GVPT454 **Seminar in the International Relations of China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher. Or must be in Government & Politics: International Relations program; and junior standing or higher.

Explores the foreign relations behavior of the People's Republic of China, with focus on the contemporary era.

0101	Margaret Pearson	Seats (Total: 30)
	W 2:00pm - 4:45pm	ESJ 2309

GVPT456 **The Politics of Terrorism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program. Credit only granted for: GVPT456 or GVPT459T. Formerly: GVPT459T.

Examination of the definition, causes and organization of terrorist activity, along with key domestic and international counter- and anti-terrorism responses. Special emphasis on challanges and opportunities to the scientific study of terrorism.

0101	Rithvik Yarlagadda	Seats (Total: 30)
	MW 1:00pm - 2:15pm	TYD 0111

GVPT457 **American Foreign Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200. Restriction: Must be in Government & Politics program; and junior standing or higher.

The principles and machinery of the conduct of American foreign relations and an analysis of the major foreign policies of the United States.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program; and junior standing or higher .

0101	Shannon Carcelli	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 2102

GVPT458A **Special Topics in Study Abroad IV; Inequality, Poverty, and Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT458U **Special Topics in Study Abroad IV; Spanish History and Politics: 1936 to the Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

GVPT459C **Seminar in Comparative Politics; Race and Ethnic Politics in Comparative Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course examines the multiple ways in which race and ethnicity become meaningful categories shaping political behavior. We will examine how race and ethnicity are socially constructed, why peopleaccept (and sometimes reject) the categories imposed on them, and how categories and identities become drivers of political behavior. The course takes a comparative perspective on identity politics, looking at cases from multiple regions around the world.

0101	Marcus Johnson	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 2111

GVPT459D **Seminar in Comparative Politics; Democracy and Democratization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. This course surveys the big debates about the nature of democracy and democratization. The course is organized around five broad themes: 1) core concepts and definitions of democracies and non-democratic regimes, 2) the nature and causes of democratization, 3) democratic principles, 4) democratic forms and institutional variation, and 5) contemporary issues in democratic politics, including democratic backsliding. Throughout the course, we will be exploring how these different elements of democracy exist around the world by using cases from Europe, Asia, the Middle East and the United States.

0101	Allison Berland	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	HJP 2217

GVPT459F **Seminar in Comparative Politics; Politics of India**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Recommended Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. "India has a well-established reputation for violating social science generalizations" -India After Gandhi, by Ramachandra Guha. Starting with its origins as an independent country and over the following seven decades, there has been speculation about whether India would stay united or would sustain its democratic institutions. Yet, in a relatively short period of time of seventy-five years, India s political system has become an example of a consolidated democracy in Asia. This course provides an introduction to the politics of India, with an emphasis on the key actors, institutions, and ideas that have shaped the evolution of Indian democracy and society.

0101	Allison Berland	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	SQH 1105

GVPT459H **Seminar in Comparative Politics; Social Movements**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 and GVPT280 or GVPT282. Restriction: Must be in Government & Politics Honors program. Discussion-intensive advanced seminar exploring the ways that social movements mobilize, the role of governments and bystanders in shaping that process, and the outcomes that they produce through connecting history, theory, and scholarship to contemporary politics. Special topics include environmental activism, transnationalism, and violent vs non-violent strategies.

0101	Jennifer Hadden MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) TYD 0111 ONLINE

GVPT459I **Seminar in Comparative Politics; Thinking Like a Citizen: Civic Ideals and Civic Practices**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT200 or GVPT280. Restriction: Must be in Government & Politics or Government & Politics: International Relations program. This course is an introduction to the emerging field of civic studies. It takes as a starting point the idea of citizens as co-creators of their many worlds, their various communities, their countries, and of course the literal world. We will look into what knowledge and what ways of thinking are most helpful to such co-creators. Topics will include: civic work in the small (human interaction, politics, power resources), finding and building shared ground, impediments to civic action (problem of collective action, limited human brain, the power of the status quo), and venues of civic action (including communities, social movements, countries, and the world).

0101	Karol Soltan TuTh 2:00pm - 3:15pm	Seats (Total: 30) LEF 2166

GVPT459W **Seminar in Comparative Politics; Revolutions and Revolutionary Movements**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT280 or GVPT282. Restriction: Must be in Government & Politics program or Government & Po litics: International Relations program. This course examines revolution as a means of political and social change. In the first part of the course, we will examine competing theories about the causes, processes, actors and outcomes of revolution. In the second part of the course, we will apply these theories and approaches to case studies of contemporary revolutions from the 19th century to thepresent.

0101	Jennifer Wallace TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1118

GVPT460H **State Politics and Government**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Recommended: GVPT260. Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A study of the structure, procedures and policies of state governments with special emphasis on intergovernmental relationships, and with illustrations from Maryland governmental arrangements.

Prerequisite: GVPT170 Restriction: Must be in the Government & Politics Honors program.

0101	Stella Rouse	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	TYD 0101

GVPT474 **Political Parties**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT241 and GVPT170. Restriction: Must be in Government & Politics program.

A descriptive and analytical examination of American political parties, nominations, elections, and political leadership.

0101	David Karol	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	TYD 1132

GVPT479B **Seminar in American Politics; Black Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. The purpose of this course is to assist students in gaining an understanding of the relationship of people of African descent in the United States to the political system and other structures of power. We critically engage several themes/topics including Black political philosophies and ideologies, electoral politics, Black and mainstream political institutions, political behavior and psychology, gender politics, and public policy. We will also analyze and discuss the informal political spaces that serve as sites for Black politics including social media, entertainment, and pop culture.

0101	Chryl Laird	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	TYD 0111

GVPT479W **Seminar in American Politics; Hidden Figures: Women of Color in Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

Prerequisite: GVPT170. Restriction: Must be in Government & Politics program or Government & Politics: International Relations program. This course explores the significant role that women of color have played in American politics. Using an intersectional lens, we criticallyengage biographical, autobiographical, and historical works that give voice to the political experiences of individual women of color. We broaden the notion of "politics" to be inclusive of women of color that are close confidants of male political figures (first ladies,wives, and "mistresses"), revolutionaries, activists, as well as those that serve in formal political positions (elected officials, politicians, and justices). Finally, we grapple with the impact of public policy on the lives of women of color.

0101	Chryl Laird	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TYD 0111

GVPT482H **Government and Politics of Latin America**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Government & Politics program; or must be in Government & Politics: International Relations program.

A comparative study of the governmental systems and political processes of the Latin American countries.

Restriction: Must be in the Government & Politics Honors program.

0101	Isabella Alcaniz	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TYD 1102

GVPT485 **Government and Politics of the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: GVPT200; and (GVPT282 or GVPT280). Restriction: Must be in Government & Politics program. Credit only granted for: GVPT485 or GVPT459E. Formerly: GVPT459E.

A comparative study of the governmental systems and political processes of Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide virtual opportunities for global engagement. Global Classrooms can range from embedded experiences to immersive, project-based collaboration. Learn more about Global Classrooms: go.umd.edu/gc-umd.

Contact department for information to register for this course.

GVPT487 **Government and Politics of China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Government & Politics; Government & Politics: International Relations) ; and junior standing or higher. Credit only granted for: GVPT359A or GVPT487. Formerly: GVPT359A.

Discussion of major issues in the study of the domestic politics of the People's Republic of China.

0101	Margaret Pearson TuTh 12:30pm - 1:45pm	Seats (Total: 30) TYD 2106

GVPT600 **Professionalization Seminar in Political Science**

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in Government and Politics (Doctoral) program.

An introduction to the practices, norms, and expectations of professional political science.

0101	Patrick Wohlfarth, Kathleen Cunningham M 2:00pm - 3:00pm	Seats (Total: 12) TYD 1111

GVPT601 **Research Design for Political Analytics**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

A graduate-level introduction to empirical research techniques used in political science. The course covers different approaches to answering empirical research questions and addresses the strengths and limitations of different research decisions. Students who successfully complete the course will be able to conceptualize and design an empirical research project, as well as evaluate the research designs used in the research projects conducted by other social scientists.

0101	Richard Engstrom W 6:00pm - 8:45pm	Seats (Total: 15) TYD 2102
PCA1	Richard Engstrom W 6:00pm - 8:45pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 15) TYD 2102

GVPT604 **Introduction to War and Armed Conflict in World Politics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Recommended: GVPT200. Restriction: Must be in the MA in International Relations program; or permission of Government and Politics department.

Examines major theories of both international and civil wars and reviews major empirical studies that test theories of conflict. The topics include the onset of armed conflict, the duration and outcomes of wars, and the durability of peace in the aftermath of wars. The focus is on developing an understanding of central debates in the literature and primary empirical findings from quantitative and cross-national analyses that are of policy relevance.

0101	Deniz Cil Tu 3:30pm - 6:15pm	Seats (Total: 30) ASY 3203	
PCR1	Deniz Cil Tu 3:30pm - 6:15pm *Must be in the International Relations (MA) program.*	Seats (Total: 5) ASY 3203	

GVPT622 **Quantitative Methods For Political Science**

Credits: 3 Grading Method: Regular, Audit

Introduction to quantitiative methods of data analysis, with emphasis on statistical methods and computer usage. Measures of association, probability, correlation, linear regression estimation techniques, introductory analysis of variance, and use of package computer programs.

0101	David Cunningham W 12:30pm - 3:15pm F 3:00pm - 5:00pm	Seats (Total: 12) VMH 1203 KEY 0119	 Discussion
PCR1	Jacob Aronson F 11:00am - 1:45pm *Must be in the International Relations (MA) program.*	Seats (Total: 30) SQH 1117	

GVPT635 **Public Opinion**

Credits: 3 Grading Method: Regular

Restriction: Must be in the Applied Political Analytics Master of Science program; or permission of department.

Investigate how citizens in a democracy think about politics, form attitudes, and how public opinion shapes and is shaped by the political environment. While being exposed to core debates in public opinion and the study of public opinion, students will use a number of surveys that have been central to advancing our knowledge of public opinion.

PCA1	Conny Kazungu Sigel M 6:00pm - 9:00pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 20) TYD 2109

GVPT708A **Seminar in International Relations Theory; International Relations Theory**

Credits: 3 Grading Method: Regular, Audit

An examination of the major approaches, concepts, and theories in the study of world politics with special emphasis on contemporary literature.

0101	Scott Kastner Tu 9:30am - 12:15pm	Seats (Total: 12) TYD 1136
PCR1	Hyunki Kim Th 2:00pm - 4:45pm *Must be in the International Relations (MA) program.*	Seats (Total: 30) JMZ 0103

GVPT718Q **Selected Topics in Political Science; Qualitative and Multi-Method Research**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Selected topics in the field of political science.

0101	Jennifer Hadden M 1:00pm - 3:45pm	Seats (Total: 12) TYD 1136

GVPT729A **Special Topics in Quantitative Political Analysis; Advanced Maximum Likelihood Estimation**

Credits: 3 Grading Method: Regular, Audit

An intensive examination of special topics in quantitative methods of political analysis in such areas as survey research methods, exploratory data analysis, advanced data management techniques, or advanced methods of policy analysis.

0101	Michael Hanmer Tu 9:30am - 12:15pm	Seats (Total: 12) TYD 1111

GVPT761 **International Political Economy**

Credits: 3 Grading Method: Regular, Audit

Recommended: GVPT708.

Major issues in international political economy including such matters as the monetary system, trade, debt, and development.

PCR1	Jennifer Wallace W 2:00pm - 4:45pm *Must be in the International Relations (MA) program.*	Seats (Total: 30) TYD 1108

GVPT770 **Seminar in American Political Institutions**

Credits: 3 Grading Method: Regular, Audit

This is the core institutions seminar in American politics. The course surveys the primary literature in the field and addresses substantively significant topics related to the study of political institutions in the American context.

0101	Kristina Miler	Seats (Total: 12)
	Tu 1:00pm - 3:45pm	TYD 1111

GVPT780 **Seminar in the Comparative Study of Politics**

Credits: 3 Grading Method: Regular, Audit

An examination of the salient approaches to and conceptual frameworks for the comparative study of politics, followed by the construction of models and typologies of political systems.

0101	John McCauley	Seats (Total: 12)
	Th 2:00pm - 4:45pm	TYD 1136

GVPT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

GVPT803 **Seminar in International Political Organization**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in Government and Politics PhD program.

An overview and critical analysis of contemporary theory on international organizations and global governance.

PCR1	Deniz Cil	Seats (Total: 30)
	W 10:00am - 12:45pm	TYD 1118
	Must be in the International Relations (MA) program.	

GVPT828O **Selected Problems in Political Behavior; Public Opinion**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual reading and research reports on selected problems in the study of political behavior.

Restriction: Must be in Government and Politics PhD program.

0101	Antoine Banks	Seats (Total: 12)
	Th 11:00am - 1:45pm	TYD 1111

GVPT849 **Readings in Government and Politics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT888P **Selected Topics in Comparative Governmental Institutions; Political Institutions**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An examination of special topics in comparative politics.

0101	Ernesto Calvo	Seats (Total: 12)
	Th 9:30am - 12:15pm	TYD 1136

GVPT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Guided readings and discussions on selected topics in political science.

Contact department for information to register for this course.

GVPT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HACS ACES-Cybersecurity Fall 2022

HACS100 **Foundations in Cybersecurity I**

Credits: 2 Grading Method: Regular

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Interdisciplinary foundational course of the ACES program. Through lectures, lab activities, and discussions, students will learn and practice various aspects of cybersecurity. Weekly technical lectures will introduce students to the operating system UNIX. Students will partner with the Division of Information Technology in a project to engage the University of Maryland community in a cyber-hygiene and cyber-ethics campaign based on the concepts learned in class.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Exper ience for Students) Living-Learning Program.

0101	Michel Cukier, Anthony Pellicone M 9:00am - 9:50am W 9:00am - 9:50am	Seats (Total: 35) PFR 1111 PFR 1111
0201	Michel Cukier, Anthony Pellicone M 10:00am - 10:50am W 10:00am - 10:50am	Seats (Total: 35) PFR 1111 PFR 1111
0301	Michel Cukier, Anthony Pellicone M 11:00am - 11:50am W 11:00am - 11:50am	Seats (Total: 35) PFR 1111 PFR 1111

HACS200 **Applied Cybersecurity Foundations II**

Credits: 2 Grading Method: Regular General Education: DSSP

Prerequisite: Minimum grade of C- in HACS101. Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Students will apply the skills learned in HACS 100 and 101 to practice cybersecurity research through team led projects employing honeypots, carrying that project through all stages - proposal, implementation, and analysis. Weekly lectures will supplement project work by addressing trends observed in honeypot attacks and protections needed, along with data collection and analysis tools, and other foundational cybersecurity concepts.

Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

0101	Zhi Xiang Lin, Michel Cukier TuTh 2:00pm - 2:50pm	Seats (Total: 42) PHY 4311
0201	Michel Cukier, Zhi Xiang Lin TuTh 3:30pm - 4:20pm	Seats (Total: 42) PHY 4311

HACS201 **Introduction to UNIX**

Credits: 1 Grading Method: Regular

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program. Credit only granted for: HACS201 or CMSC216. Additional information: Required course for students who have not completed the ACES Living-Learning Program or taken CMSC216.

Introduction to the operating system UNIX through lectures and hands-on assignments.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Bertrand Sobesto Th 5:30pm - 6:20pm	Seats (Total: 35) PHY 4311

HACS202 **Group Project in Cybersecurity**

Credits: 3 Grading Method: Regular

Restriction: Must be a first-year student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program; and cannot have been an ACES Living-Learning Program student (i.e., have taken HACS100, HACS101 and HACS200).

The group project in this course will combine technical, analytical, and communication skills, further engaging students in the practice of cybersecurity. Students will learn about design concepts and data analysis as they engage in a team project designing, deploying, and collecting and analyzing data from a honeypot. The hands-on nature of the course will give students experiential insight about how and why attackers attack and how to engage in protective measures to prevent attacks.

0101	Bertrand Sobesto Th 6:30pm - 9:15pm	Seats (Total: 52) PHY 4311

HACS208N **Digital Forensics**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Explores the various fields of digital forensics, such as memory, hard drive, and network traffic analysis. This course covers the legalities involved with forensic investigations and the wide variety of digital forensics tools, including both open source and proprietary. This course includes the different types of forensic artifacts that can be acquired and analyzed and review the careers and certifications relevant to the field.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living Learning Program

0101	Marcelle Lee W 4:00pm - 6:45pm	Seats (Total: 24) PFR 0103

HACS208P **Beyond Technology, the Policy Implications of Cyberspace**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS, SCIS

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program.

Explores the key issues facing policy makers attempting to manage the problem of cybersecurity from its technical foundations to the domestic and international policy considerations surrounding governance, response, and critical infrastructure risk management. The course is designed for students with little to no background in information technology, and will provide the principles to understand the current debates shaping a rapidly evolving security landscape.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living Learning Program.

0101	Charles Harry	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	PFR 1111

HACS279 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 1-3 Grading Method: Regular

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS287 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS297 **Cybersecurity Experience Reflection**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Living-Learning Program; and permission of UGST-HCOL-ACES Cybersecurity Program.

Cybersecurity experience is defined as an experiential learning activity either with a University of Maryland entity (such as the Division of Information Technology, the ACES competition team or in an ACES outreach program), or with an external organization that will provide valuable, hands-on experience to supplement the knowledge learned in the other ACES coursework.

Permission of department required.

0101	Cassie Harrington	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	PFR 1111

HACS408L **Analytical and Forensic Techniques for Cybersecurity**

Credits: 3 Grading Method: Regular

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Explores forensic artifacts contained in digital devices, security mechanisms available to protect digital devices and mechanisms available to cybersecurity professionals for analysis of digital devices. Topics include file structure and recovery of IoT and cell phone forensic data, network data capture and analysis, enterprise mobile device management analysis and forensic investigation of digital devices (IoT, telematics systems, etc.) that interact with cell phone and other devices. Incident response, timeline analysis, and detection and analysis of artifacts will be explored in a hands-on and lab-centric course using a variety of open-source tools and commercial cloud services.

Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Mark Haney	Seats (Total: 26)
	M 5:00pm - 7:45pm	PHY 4311B

HACS408M **Introduction to Cyber Threats and Risk Management**

Credits: 3 Grading Method: Regular

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

Provides an exploration of cyber risk management and present-day cyber threats, their impacts, and their mitigations. Students will take a multi-disciplinary approach to understanding threats and risks including the technical, policy, and social aspects. This course is guided by real-world cyber threats and examples.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	John McGahagan	Seats (Total: 35)
	Tu 5:30pm - 8:15pm	PHY 4311

HACS408O **Internet of Things Security**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

This increasingly interconnected world brings a need for understanding cybersecurity challenges associated with embedded devices and systems. This course will expose students to topics in Internet of Things (IoT) and Cyber Physical System (CPS) device types, IoT/CPS threat categories, security services, distributed networking, activity privacy, and intrusion detection for embedded environments. In addition to individual homework assignments, students will participate in a semester long group project involving research, design, and implementation.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program and course will need a permission stamp for students to register.

0101	Priyanka Ranade	Seats (Total: 35)
	W 5:00pm - 7:45pm	ONLINE

HACS408X **Advanced Seminar in Cybersecurity; History of Exploitation**

Credits: 3 Grading Method: Regular

Explores various lenses of cybersecurity in order to promote an interdisciplinary understanding of the field. Although each section may focus on a different topic, each integrates active student engagement, communication, critical communication, critical thinking, and teamwork.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Machon Gregory	Seats (Total: 26)
	W 5:00pm - 7:45pm	PHY 4311B

HACS479 **Undergraduate Research in Cybersecurity**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in research in order to gain greater insight into a specific area within cybersecurity, obtain an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications, and to prepare for graduate school and the workforce.

Contact department for information to register for this course.

HACS498 **Cybersecurity Group Problem Solving**

(Perm req)

Credits: 3 Grading Method: Regular

The Advanced Cybersecurity Experience for Students (ACES) program encourages its students to engage in team problem solving activities in order to gain greater insight into a specific area within cybersecurity and to obtain an appreciation for the subtleties and difficulties associated with these activities in order to prepare students for graduate school and the workforce. Students engage in a semester long problem solving or development project under the mentorship of a industry specialist and with the guidance of university faculty. Through the exercise the students will develop teamwork experience and professional communication skills in addition to experience of the project itself. The project might be evaluation, creation, testing or analysis of some area of cybersecurity as needed by the mentor-sponsor. A contract of what will be accomplished is required must be agreed upon by the mentor, the student and the ACES leadership before the project can begin.

Restriction: Must be a student in the ACES (Advanced Cybersecurity Experience for Students) Minor Program.

0101	Neal Ziring Contact instructor or department for details.	Seats (Total: 8)
0201	Thomas Woods Contact instructor or department for details.	Seats (Total: 7)
0301	Jasmon Bailey Contact instructor or department for details.	Seats (Total: 9)

HBUS Interdisciplinary Business Honors Fall 2022

HBUS100 The Future of Work: Interdisciplinary Foundations and Horizons of Business

Credits: 3 Grading Method: Regular

This course begins with foundations in both the history and evolution of business functions and processes and the role of business in the general health and welfare of the United States and the world. It then considers the future of business and work from a critical and multidisciplinary perspective, involving a wide array of technological, information access, macroeconomic, governmental and political, legal, socially responsible, environmental, personal and interpersonal dimensions. The future of work is particularly dynamic in view of rapid changes in technological developments, artificial intelligence, automation, information access, public health conditions, and social and environmental justice demands. These conditions are explored in relation to questions of socially responsible practices in business that respect employee rights, promote ethical conduct, involve new forms of media and global coordination, address diversity and equity concerns, protect the environment, and respond to new ways of thinking, feeling, and critically engaging the world by all individuals involved in various ways and capacities with business. This course provides an overview of these topics relying on senior faculty to ensure that students, as they develop a critical and multidisciplinary sense of the future of work and business, also engage in critical introspection about themselves in considering their skills, interests, and goals.

0101	Joseph Bailey TuTh 8:00am - 9:15am	Seats (Total: 65) VMH 1511

HDCC Design Cultures and Creativity Fall 2022

HDCC105 **Introduction to Design Cultures and Creativity I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, DVUP, SCIS

Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

History, concepts, and technologies of creative design expression, coupled with an introduction to development for particular platforms and devices.

0101	Jessica Lu TuTh 9:30am - 10:45am	Seats (Total: 70) PFR 1105

HDCC201 **Capstone Proposal Through Design Thinking**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HDCC105 and HDCC106. Restriction: Must be in the Design Cultures and Creativity Honors College Living/Learning program.

Engages principles of design thinking to prepare second-year students in the Design Cultures and Creativity (DCC) program to create a proposal for their spring Capstone Project.

0101	Skye De Saint Felix Tu 3:00pm - 3:50pm	Seats (Total: 25) PFR 0111
0201	Skye De Saint Felix Tu 4:00pm - 4:50pm	Seats (Total: 25) PFR 0111
0301	Skye De Saint Felix W 4:00pm - 4:50pm	Seats (Total: 25) PFR 0111

HDCC208B **Seminar in Digital Cultures and Creativity; Digital Storytelling**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Porter Olsen F 3:00pm - 5:30pm	Seats (Total: 15) PFR 0111

HDCC208D **Seminar in Digital Cultures and Creativity; Designing Communities**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Danielle Abe	Seats (Total: 15)
	MW 2:00pm - 3:15pm	PFR 0111

HDCC208F **Seminar in Digital Cultures and Creativity; Creativity through Visual Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Anat Szendro Sevilla	Seats (Total: 15)
	M 4:00pm - 6:30pm	PFR 0111

HDCC208L **Seminar in Digital Cultures and Creativity; Experiments in Artistic Publication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Jessica Gatlin	Seats (Total: 15)
	Th 6:30pm - 9:00pm	ASY 1317

HDCC208M **Seminar in Digital Cultures and Creativity; Rewriting Musical Genre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An advanced seminar in specific aspects of digital culture and creativity, designed to keep students abreast of the latest developments in new media and the online world. Possible topics include mobile gaming, digital storytelling, and electronic music.

0101	Jose Calderon	Seats (Total: 15)
	MW 10:00am - 11:15am	PFR 0111

HDCC379 **Design Cultures and Creativity Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular

Involves research and/or creative scholarship directed by individual DCC faculty outside of the formal classroom structure.

0101	Jessica Lu	Seats (Total: 10)
	Contact instructor or department for details.	

HEBR Hebrew Fall 2022

HEBR106 Intensive Elementary Hebrew I

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Assessment (FLPA) score. Credit only granted for: HEBR111 or HEBR106.

An intensive study of fundamentals of Hebrew reading, writing, listening and Israeli culture. Covers present tense in all verb categories, basic syntax and builds vocabulary.

0101	Avital Karpman	Seats (Total: 15)
	TuTh 11:00am - 12:15pm Class time/details on ELMs	JMZ 1215 ONLINE
0201	Avital Karpman	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm Class time/details on ELMs	JMZ 1215 ONLINE

HEBR112 Elementary Hebrew II

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HEBR111; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed HEBR103; and must not have completed HEBR104. Credit only granted for: (HEBR103 and HEBR104) or HEBR112.

Continuation of HEBR 111.

Contact department for information to register for this course.

HEBR206 Intermediate Intensive Hebrew I

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed HEBR107 OR HEBR112; or must have appropriate Foreign Language Placement Assessment(FLPA) score. Restriction: Must not be a fluent/native speaker of Hebrew. Credit only granted for: HEBR206 or HEBR211.

Provides a comprehensive review of the fundamentals of Hebrew grammar and oral skills, and introduces new skills in future tense verb conjugation, and communication in reading, writing, listening and speaking.

0101	Avital Karpman	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	JMZ 1215
	Class time/details on ELMs	ONLINE

HEBR212 **Intermediate Hebrew II**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: HEBR211; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not have completed HEBR203; and must not have completed HEBR204. Credit only granted for: (HEBR203 and HEBR204) or HEBR212.

Continuation of HEBR211.

Contact department for information to register for this course.

HEBR249C **Special Topics in Hebrew Studies; Israeli Culture in Television, Film and Music**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A broad range of cultural and societal topics pertaining to the communication of Hebrew.

Modern Israeli film, television and music through a cultural and historical lens. Taught in Hebrew.

0101	Aliza Sandalon	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

HEBR298B **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: JWST262, ENGL262. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano	Seats (Total: 25)
	MW 2:00pm - 3:15pm	ESJ B0322

HEBR313 **Conversation and Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: HEBR212; or students who have taken courses with comparable content may contact the department.

A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

0101	Aliza Sandalon	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HEBR369A **Special Topics in Study Abroad III; Hebrew Lower Advanced**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369C **Special Topics in Study Abroad III; Hebrew Upper Advanced**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR369D **Special Topics in Study Abroad III; Hebrew Upper Intermediate**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HEBR386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor; and junior standing or higher.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HEBR499 **Independent Study in Hebrew**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent study under faculty supervision.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

HESI Higher Ed, Student Affairs, and International Ed Policy Fall 2022

HESI217 **Introduction to Leadership**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Freshman standing; or sophomore standing. Credit only granted for: LEAD217 or HESI217. Formerly: HESI217.

Surveys the study and practice of leadership and provides students with a variety of experiences to wrestle with large leadership questions. What is leadership? Who can be a leader? How is leadership an important aspect of understanding self and others? Students will explore and respond to these questions through a variety of leadership theories and models, self-assessments, critical reflection, active-learning, group projects, and research. The course will introduce students to critical theory and critical perspectives of leadership to help students broaden their perspectives on leadership and develop more complex thought and practice of leadership.

This course will survey the study and practice of leadership and provide students with a variety of experiences to wrestle with large leadership questions. What is leadership? Who can be a leader? How is leadership an important aspect of understanding self and others? Students will explore and respond to these questions through a variety of leadership theories and models, self-assessments, critical reflection, active-learning, group projects, and research. Students must pay a $32 materials fee. Contact leadershipstudies@umd.edu with questions.

0201	Kwesi Sam TuTh 12:30pm - 1:45pm	Seats (Total: 25) TWS 1320
0301	Pamela Scott MW 11:00am - 12:15pm	Seats (Total: 25) TWS 1320
0401	Noel Kuriakos TuTh 2:00pm - 3:15pm	Seats (Total: 25) TWS 1320
FC01	Noel Kuriakos TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 3233
FC02	Pamela Scott MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1103

HESI310 **Transfer2Terp Learning Community: Applying Your Strengths at the University of Maryland and Beyond**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Priority will be given to students transferring from Maryland Community Colleges; or permission of EDUC-Counseling, Higher Education and Special Education department.

Students will identify their strengths and learn how to apply them both in and outside of the classroom. Students will work side by side with the faculty and staff in the Adele H. Stamp Student Union to learn about their strengths while applying them to leadership positions.

0201	Bria Bennett TuTh 11:00am - 12:15pm	Seats (Total: 15) EDU 2101
0301	Myles Alexander TuTh 12:30pm - 1:45pm	Seats (Total: 15) JMZ 2122

HESI315 **Leadership in Groups and Organizations**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LEAD217 or HESI217. Credit only granted for: LEAD315 or HESI315. Formerly: HESI315.

Assists students in acquiring and integrating leadership knowledge within group and organizational contexts. Individual (self), relational (others), and contextual (context) influences on leadership will be examined using theories and frameworks that will help students learn to navigate complex organizational environments and practice leadership that is process-based and relationship-oriented. Through hands-on activities, personal exploration, and critical analysis of leadership within groups and organizations, students will gain greater insight into the historical, cultural, and environmental elements of leadership.

This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities or virtual, project-based, international collaboration. Learn more Global Classrooms: go.umd.edu/gci. Email leadershipstudies@umd.edu for permission to enroll. Students must pay a $15 materials fee.

0501	Ashley Hixson W 10:00am - 12:45pm	Seats (Total: 20) EDU 3233

HESI318R **Applied Contextual Leadership; Applied Contextual Leadership; Foundations and Applications of Challenge Course Theory and Instruction**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Prerequisite: Permission of Instructor needed. Required course to become a Challenge C ourse facilitator with the RecWell Adventure Program. Contact Meghan Lou ghry at mloughry@umd.edu to schedule an interview. Restriction: Permission of department.

0101	Meghan Loughry M 6:00pm - 9:00pm	Seats (Total: 12) ERC B0170E

HESI318T **Applied Contextual Leadership; Foundations and Applications of Adventure Leadership Instruction**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

Permission of instructor needed. Required course to become an Adventure Trip Leader with the RecWell Adventure Program. Contact Amanda Preperato at aprep@umd.edu to schedule an interview.

0101	Meghan Loughry	Seats (Total: 10)
	Tu 6:00pm - 9:00pm	ERC B0170E

HESI320 **Social Action Seminar**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: HESI217 or LEAD 217; and HESI315 or LEAD315. Restriction: Must be in the Leadership Studies Minor or Leadership Studies Certificate program. Credit only granted for: HESI320 or LEAD320. Formerly: HESI320.

The purpose of the Social Action Sequence (LEAD 320 & LEAD 321) is to examine the connections between leadership and social change, and learn how our own leadership knowledge and practice can be used to advance progress toward more just and equitable communities. In LEAD 320 (2-credits), students will have the opportunity to conduct a semester-long project to increase their knowledge and understanding of a social issue of their interest, and design resources and an action plan for engaging in work related to this social issue in their own communities.

Restricted to students in the Leadership Studies Program. Contact leadershipstudies@umd.edu with questions.

0101	Melissa Rocco	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Class time/details on ELMs	ONLINE

HESI417 **Leadership Studies Capstone**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESI217 or LEAD217; and HESI315 or LEAD315. Restriction: Permission of Counseling, Higher Education, and Special Education department required; Restricted to students in Leadership Studies Minor and Certificate only . Credit only granted for: LEAD417 or HESI417. Formerly: HESI417.

As the final academic experience in the Leadership Studies Minor/Certificate, this seminar is designed to be both retrospective and integrative, encouraging you to synthesize relevant concepts and experiences and to formulate your own informed perspective on the implications of leadership. This course will serve as a place to critically think about the field of leadership studies and the implications of leadership in multiple settings for life-long practice. You will be expected to demonstrate skill in analysis of pertinent literature, write with purpose and clarity, facilitate the learning and development of others, and engage in thoughtful group discussion. In this seminar, you will submit scholarly products to demonstrate a mature understanding of your leadership trajectory in past, present and future contexts.

Capstone course for students in the Leadership Studies Program. Contact leadershipstudies@umd.edu for permission to enroll.

0101	Noel Kuriakos	Seats (Total: 25)
	W 2:00pm - 4:45pm	ASY 3203

HESI418D **Leadership and Ethnicity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Credit only granted for: HESI418D or HESI423. Formerly: HESI418D.

Examines the concept of leadership from the standpoint of race, ethnicity, and culture. Specifically, we will explore the concept and differing meanings of leader and leadership within racial/ethnic communities in the United States. Issues of leaders and leadership will be examined as influenced by political, cultural, and historic events. The course will place particular emphasis on colleges and universities as a microcosm of the larger society and as a cultural site for exploring and assessing issues of race, ethnicity, diversity and leadership.

This course will examine the concept of leadership from the standpoint of race, ethnicity, and culture. Specifically, we will explore the concept and differing meanings of leader and leadership within racial/ethnic communities in the United States. Issues of leaders and leadership will be examined as influenced by political, cultural, and historic events. The course will place particular emphasis on colleges and universities as a microcosm of the larger society and as a cultural site for exploring and assessing issues of race, ethnicity, diversity and leadership.

0101	Brandon Dula	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	HJP 2217

HESI418F **Leadership and the Jewish Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

Credit only granted for: HESI418F or HESI424. Formerly: HESI418F.

Offers students the opportunity to critically examine leadership and leadership identity development in relation to Jewish culture and identity. Explores how Jewish culture and ethnicity influence leadership styles and the role that leadership has played within Jewish history. Students will explore general leadership theories as well as personal leadership identity development in both an overall sense and as a member of the Jewish community. Examines leaders within the Jewish movement and how their leadership has influenced Jewish communities and explores issues facing the Jewish community both on college campuses and in the world and prepare student leaders to act as advocates for the Jewish community.

This course will offer students the opportunity to critically examine leadership and leadership identity development in relation to Jewish culture and identity. We will also explore how Jewish culture and ethnicity influence leadership styles and the role that leadership has played within Jewish history.

0101	Ari Israel	Seats (Total: 35)
	M 2:00pm - 4:45pm	TYD 2106

HESI418V **Special Topics in Leadership; Global Leadership in a Virtual Context**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

Students with previous credit for HESI318I Global Leadership in a Virtual Contextare not eligible to take this course. Contact leadershipstudes@umd.edu for more information. This is a Global Classrooms course, developed in partnership with the Office of International Affairs (OIA) to provide opportunities or virtual, project-based, international collaboration. Learn more Global Classrooms: go.umd.edu/gci. In this course, UMD students are placed on virtual teams with students from an international institution to explore cross-cultural leadership. Students will be expected to meet for live sessions 5-7 times out of the semester, likely on Friday evenings, to accommodate time zone differences with our international partners.

0101	Melissa Rocco	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HESI489 **Field Experiences in Higher Education, Student Affairs, and International Education Policy**

Credits: 1-4 Grading Method: Regular, Pass-Fail, Audit

Planned field experience in education and community related activities. Credit not to be granted for experiences accrued prior to registration.

Contact department for information to register for this course.

HESI498 **Special Problems in Higher Education, Student Affairs, and International Education Policy**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Available only to HESI students who have formal plans for individual study of approved problems.

Contact department for information to register for this course.

HESI671 **Intergroup Dialogue Facilitation Practicum**

Credits: 3 Grading Method: Regular

Prerequisite: EDCP616 and HESI771; or permission of instructor. Restriction: Limited to HESI Student Affairs Concentration students only. Credit only granted for: EDCP671 or HESI671. Formerly: EDCP671.

Developing knowledge and skills for facilitating intergroup dialogues. Using the principles and content of intergroup dialogues to create scenarios for the practice of listening, understanding, and taking action under theories of social justice.

0101	Carlton Green, Jazmin Pichardo M 12:00pm - 3:00pm	Seats (Total: 13) JMZ 0208

HESI672 **Individual and Organizational Assessment in Student Affairs**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCP672 or HESI672. Formerly: EDCP672.

An examination of the scholarship and practice of assessment of college student learning and developmental outcomes as well as organizational practices that contribute to those outcomes.

0101	Kristan Skendall Tu 4:30pm - 7:15pm	Seats (Total: 15) JMZ 3203

HESP Hearing and Speech Sciences Fall 2022

HESP120 **Introduction to Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS, DSSP

Additional information: HESP120 is required for HESP majors. HESP majors may not substitute LING200.

An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

0101	Dominique Mwepu TuTh 12:30pm - 1:45pm	Seats (Total: 45) TYD 0102

FC01	Dominique Mwepu	Seats (Total: 30)
	TuTh 6:00pm - 7:15pm	LEF 2166
	Restricted to students in Freshmen Connection.	

HESP150 **Introduction to Language Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Language science is the scientific study of how humans acquire, use, comprehend, and produce language. Most people in all societies learn and use their native language or languages with apparent ease - but don't be fooled: languages are highly complex, and speaking and understanding language requires some amazing feats of mental acrobatics. Thus there are many opportunities for difficulties with language, which is the focus of our field. Understanding difficulties with speech, language, and hearing require first understanding how processing works when language is successful - the psychological (behavioral) and neurobiological (brain) factors that enable people to learn and use language despite its intricacies, the structure and properties of language itself, and how knowledge of language is acquired, represented, and processed in the mind and brain.

PBH1	Fathima Zuhurudeen	Seats (Total: 50)
	Tu 6:30pm - 9:00pm	ARC 1105
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP202 **Introduction to Hearing and Speech Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorders and their treatment.

0101	Christina Shields, Sarah Zsak	Seats (Total: 100)
	TuTh 9:30am - 10:45am	TYD 0117

HESP214 **The Research Behind Headlines on Words, Thought, and Behavior**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

Cross-listed with: HNUH278A. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

FC02	David Martinez	Seats (Total: 20)
	TuTh 4:30pm - 5:45pm	LEF 2166
	Restricted to students in Freshmen Connection.	

HESP300 **Introduction to Psycholinguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department. Recommended: HESP120.

An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

0101	Yi Ting Huang	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	ASY 3211

HESP305 **Anatomy and Physiology of the Speech Mechanism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Anatomy, physiology, and neurology of speech mechanism.

0101	Tammatha O'Brien	Seats (Total: 60)
	TuTh 11:00am - 12:15pm	SKN 0104

HESP311 **Anatomy, Pathology and Physiology of the Auditory System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP202; or permission of BSOS-Hearing & Speech Sciences department.

Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

0101	Christina Shields	Seats (Total: 48)
	TuTh 11:00am - 12:15pm	TYD 2102

HESP386 **Experiential Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of BSOS-Hearing & Speech Sciences department.

Students will have the opportunity observe and/or participate in therapy activities provided by a speech-language pathologist or audiologist in this experiential learning course.

Contact department for information to register for this course.

HESP388 **Undergraduate Research Externship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Off-campus research internship with departmental affiliates at National Institutes of Health and regional universities. Contact department chairman for openings and descriptions of eligible placements.

Contact department for information to register for this course.

HESP389 **LEAP Classroom Internship**

(Perm req)

Credits: 1-3 Grading Method: Regular

Participation in a language-based, literacy-rich preschool classroom for children with speech-language disorders. Students will learn behavior management techniques, curriculum planning and implementation, facilitation of play among children, data collection and teaching srategies.

Contact department for information to register for this course.

HESP400 **Speech and Language Development in Children**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP300; or permission of BSOS-Hearing & Speech Sciences department. Recommended: LING200 or HESP120. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

Analysis of the normal processes of speech and language development in children.

0101	Eliza Thompson	Seats (Total: 45)
	TuTh 2:00pm - 3:15pm	TYD 1132

PBH1	Tonya Williams-Walker Th 6:30pm - 9:00pm	Seats (Total: 50) ARC 1105
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP403 **Introduction to Phonetic Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP305; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

0101	Margaritis Fourakis TuTh 12:30pm - 1:45pm	Seats (Total: 45) TYD 1114

HESP411 **Introduction to Audiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in HESP311; or permission of BSOS-Hearing & Speech Sciences department. Restriction: Must be in Hearing and Speech Sciences program; or permission of BSOS-Hearing & Speech Sciences department.

An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

0101	Sarah Sohns TuTh 3:30pm - 4:45pm	Seats (Total: 50) ARC 1103
PBH1	Christopher Zalewski M 6:00pm - 8:30pm	Seats (Total: 25) TWS 1313
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP413 **Aural Rehabilitation/Habilitation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HESP411. Restriction: Sophomore standing or higher.

The fundamental aspects of aural rehabilitation therapy for both adults and children are introduced to students. Class time will consist of lectures, discussions, and hands-on activities.

PBH1	Gavin Mahoney	Seats (Total: 25)
	W 6:00pm - 8:30pm	KNI 1105
	Must be in the Hearing & Speech in the Evening (HESPIE) program.	

HESP415 **Principles and Methods in Speech-Language Pathology**

Credits: 2 Grading Method: Regular

Prerequisite: HESP400. Restriction: Must be in Hearing and Speech Sciences program.

The principles and methods required to provide treatment of speech and language disorders to children and adults. Topics include writing goals and objectives, programming,teaching strategies,session design, data collection, behavior modification and counseling.

0101	Eliza Thompson	Seats (Total: 40)
	W 1:00pm - 2:45pm	SQH 1103

HESP416 **Principles and Methods in Audiology**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Minimum grade of C- in HESP411. Restriction: Must be in Hearing and Speech Sciences program; and permission of BSOS-Hearing & Speech Sciences department.

Relate previous knowledge of anatomy/physiology and pathologies of the auditory system and integrate this information into clinical application.

0101	Lisa Rickard	Seats (Total: 25)
	W 3:00pm - 4:45pm	LEF 0135

HESP422 **Neurological Bases of Human Communication**

Credits: 3 Grading Method: Regular

Prerequisite: HESP305; or permission of instructor. Credit only granted for: HESP498 or HESP422.

Basic neurology as it pertains to anatomy and physiology substrates of speech and language.

0101	Kristin Slawson	Seats (Total: 40)
	TuTh 9:30am - 10:45am	SQH 1101

HESP468H **Professional Development in Research and Academia; Honors Seminar: Professional Development**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

The purpose of this seminar is to complement your honors project with practical advice on how to navigate successful careers in research and academia. As you progress through your undergraduate years (especially if you work in a lab), you will likely make several unofficial observations about life as a graduate student, postdoc, or professor, and overhear conversations that include new terminology that may be confusing (e.g., research mentorship, grants, conference abstract, tenure). This can create a mysterious aura around what it is like to obtain your PhD and work in academia generally. In this class, we will cover tips and skills that are often passed along informally in the lab; but here, we will discuss these issues overtly from a range of perspectives, experiences, and best practices.

0101	Matthew Goupell, Jared Novick	Seats (Total: 10)
	F 12:00pm - 12:50pm	LEF 0104

HESP469 **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469A **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP469B **Honor Thesis Research**

Credits: 1-3 Grading Method: Regular

Student will develop thesis proposal, conduct research, analyze results, develop and defend final written document.

Contact department for information to register for this course.

HESP498 **Seminar**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in human communication and its disorders.

Contact department for information to register for this course.

HESP499 **Independent Study; Topics in the Hearing and Speech Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP499H **Independent Study**

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

A directed study of selected topics pertaining to human communication and its disorders.

Contact department for information to register for this course.

HESP600 **Instrumentation in Hearing and Speech Sciences**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Types and principles of operation of electronic equipment used in the hearing and speech sciences.

Offered Fall only.

0101	Alessandro Presacco Tu 6:00pm - 8:30pm	Seats (Total: 10) KEY 0117

HESP606 **Basic Hearing Measurements**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HESP411; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Theoretical principles, methodology, and interpretation of routine audiometric tests, including pure tone, speech, and acoustic immittance measures. Modification of procedures for special populations. Equipment calibration and mass hearing screening programs.

0101	Anna Tinnemore F 9:00am - 11:30am	Seats (Total: 9) LEF 1220

HESP610 **Language Disorders in Adults**

Credits: 2

Grading Method: Regular, Audit

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor.

Etiology, diagnosis and management of language problems of adults associated with aging, brain injury and degenerative conditions.

0101	Yasmeen Shah **Meets October 20, 2022 - December 15, 2022** Th 9:00am - 12:35pm	Seats (Total: 30) LEF 0135

HESP613 **Autism Spectrum Disorders**

Credits: 2 Grading Method: Regular, Audit

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; or permission of instructor. Credit only granted for: HESP639A or HESP613. Formerly: HESP639A.

Etiology, diagnosis and management of autism spectrum disorders.

0101	Mark Dexter **Meets October 17, 2022 - December 12, 2022** Tu 9:30am - 12:50pm	Seats (Total: 31) LEF 0135

HESP616 **Language Disorders in the Pre-school Age**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: HESP400; or students who have taken courses with comparable content may contact the department. Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Theoretical, empirical and clinical perspectives on language disorders in children from infancy through pre-school age.

0101	Nan Ratner **Meets August 29, 2022 - October 16, 2022** Tu 9:30am - 1:05pm	Seats (Total: 30) LEF 0135

HESP624 **Voice Disorders**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Restriction: Permission of BSOS-Hearing & Speech Sciences department; or must be in Hearing and Speech Sciences: M.A. (Master's) program.

Etiological characteristics, assessment and treatment of phonatory disorders in children and adults.

0101	Nancy Solomon **Meets August 29, 2022 - October 13, 2022** TuTh 6:45pm - 9:00pm Class time/details on ELMs	Seats (Total: 30) LEF 1220 ONLINE

HESP626 **Language disorders in school-aged children and adolescents**

Credits: 2 Grading Method: Regular, Audit

Etiology, assessment and treatment of communication and learning problems in school age children and adolescents

0101	Nan Ratner **Meets October 17, 2022 - December 12, 2022** Tu 4:30pm - 7:30pm	Seats (Total: 30) LEF 0135

HESP630 **Electrophysiological Measurements**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HESP606. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Principles and techniques of physiological and electrophysiological measures of the audio-vestibular mechanisms.

Offered fall only.

0101	Kimberly Jenkins Tu 4:30pm - 7:00pm	Seats (Total: 10) KEY 0119

HESP638 **Research Practicum**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail, Audit

Analysis, synthesis and integration of knowledge related to current research or clinical issues in human communication and its related disorders.

Contact department for information to register for this course.

HESP639D **Special Topics in Hearing and Speech Sciences; Advanced Dysphagia**

Credits: 2 Grading Method: Regular, Audit

Intensive coverage of selected topics of current interest.

0101	Ed Bice M 5:00pm - 6:40pm	Seats (Total: 30) LEF 1201	

HESP645 **Pediatric Audiology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HESP606. Restriction: Must be in Clinical Audiology: Au.D. or Ph.D. (Doctoral) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Evaluation and treatement of hearing-impaired children.

Offered Fall only.

0101	Hannah Willison Th 4:30pm - 7:00pm	Seats (Total: 10) LEF 1201	

HESP648A **Clinical Practice in Speech: Diagnostic Procedures**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Permission of instructor.

Supervised training in the application of clinical methods in the diagnosis of speech disorders.

2101	Jessica Wertz Contact instructor or department for details.	Seats (Total: 5)	
2301	Eliza Thompson F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab
2701	Jose Ortiz F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab
2801	Eusebia Mont F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab
3601	Kristin Slawson F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab
3701	Kathryn Dow-Burger F 9:00am - 11:50am	Seats (Total: 5) LEF 0135	Lab

HESP648B **Clinical Practice in Speech: Therapeutic Procedures**

(Perm req)

Credits: 1-2 Grading Method: Regular

Prerequisite: HESP648A. Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the treatment of speech disorders.

2101	Jessica Wertz	Seats (Total: 5)	
	Th 12:45pm - 1:35pm	LEF 0135	Lab
	W 1:00pm - 2:30pm	LEF 0135	Lab
2301	Eliza Thompson	Seats (Total: 5)	
	Th 12:45pm - 1:35pm	LEF 0135	Lab
2701	Jose Ortiz	Seats (Total: 5)	
	Th 12:45pm - 1:35pm	LEF 0135	Lab
	F 12:00pm - 12:50pm	LEF 0135	Lab
2801	Eusebia Mont	Seats (Total: 5)	
	M 9:30am - 10:50am	LEF 0135	Lab
3601	Kristin Slawson	Seats (Total: 5)	
	Th 12:45pm - 1:45pm	LEF 0135	Lab
3701	Kathryn Dow-Burger	Seats (Total: 5)	
	Th 12:45pm - 1:35pm	LEF 0135	Lab
	W 10:00am - 10:50am	LEF 0135	Lab

HESP649A **Clinical Practice in Audiology: Diagnostic Procedures**

(Perm req)

Credits: 1-2 Grading Method: Regular

Restriction: Permission of instructor. Repeatable to 6 credits.

Supervised training in the application of clinical methods in the diagnosis of hearing disorders.

Contact department for information to register for this course.

HESP649B **Clinical Practice in Audiology - Aural Rehabilitation**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: HESP649A.

A clinical practicum course with individualized instruction, which focuses on the skills necessary to provide intervention and counseling for a wide range of disorders of the auditory system in patients of varying ages and cultural backgrounds. Each student will be various activities across three semesters (Spring YR2, Summer YR2, and Fall YR3). Students may work individually or in pairs to provide hearing loss intervention, auditory training, hearing loss prevention education, and communication strategy training. The student is expected to prepare for each session with a complete clinical plan, educational materials, and counseling strategies. Students must meet with the Audiologist prior to the aural rehabilitation (AR) session to discuss the plan of care. During the visit, the student will perform hearing loss handicap assessments, lead counseling sessions regarding rehabilitative options, make modifications to existing treatment plans/hearing aids, and educate the patient about their hearing. Following the visit, the student will document the encounter according to clinical protocol and ethical standards using the electronic medical records system. All patient-related information will be handled within a secure computer environment which meets HIPAA regulations for protected health information.

Contact department for information to register for this course.

HESP700 **Hearing Aids**

Credits: 3 Grading Method: Regular, Audit

Principles, methods and procedures for selection, fitting, calibration and management of amplification systems for hearing-impaired children and adults.

0101	Eric Hoover	Seats (Total: 10)
	W 4:00pm - 6:30pm	LEF 1222

HESP702 **Diagnostic Procedures in Speech-Language Pathology**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Restriction: Must be in Hearing and Speech Sciences: M.A. (Master's) program; and permission of BSOS-Hearing & Speech Sciences department. Or permission of instructor.

Diagnostic tools and methods in the analysis of speech-language disorders in children and adults.

0101	Colleen Worthington	Seats (Total: 30)
	Meets August 29, 2022 - October 14, 2022	
	Th 9:00am - 12:35pm	LEF 0135

HESP708 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Individual research projects under guidance of a faculty member.

Contact department for information to register for this course.

HESP710 **Industrial and Environmental Noise Problems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of instructor.

Evaluation and control of noise hazards. Effects of noise on man. Medico-legal aspects of noise-induced hearing impairment.

0101	Eric Hoover	Seats (Total: 20)
	M 5:00pm - 7:30pm	LEF 0135
	Contact instructor or department for details.	

HESP712 **Cochlear Implants and Other Implantable Technologies**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Must have completed or be concurrently enrolled in HESP700, HESP701, and HESP722; or permission of instructor.

Comprehensive presentation of cochlear implant design and processing, medical/surgical aspects, evaluation, programming, outcomes in children and adults, and post stimulation care. The role of the audiologist as a member of the cochlear implant team will be emphasized. Current and emerging trends in other implantable technologies also will be covered.

0101	Matthew Goupell, Nicole Nguyen	Seats (Total: 12)
	M 1:00pm - 3:30pm	LEF 1221

HESP722 **Psychoacoustics**

Credits: 3

Grading Method: Regular, Audit

Auditory perception and auditory processing in normal and impaired hearing.

0101	Matthew Goupell	Seats (Total: 15)
	M 3:40pm - 6:10pm	LEF 1221

HESP728 **Advanced Clinical Practice in Speech; Advanced Graduate Laboratory Practicum in Speech-Language Pathology**

(Perm req)

Credits: 1-8

Grading Method: Regular

Clinical internship in selected off-campus facilities.

Contact department for information to register for this course.

HESP729 **Advanced Clinical Practice in Audiology; Advanced Graduate Laboratory Practicum in Audiology**

(Perm req)

Credits: 1-8

Grading Method: Regular

Clinical internship in selected off-campus facilities.

1301	Nicole Nguyen Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 10)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 20)

HESP788 **Graduate Research Externship**

Credits: 1-3 Grading Method: Regular, Audit

Off-campus research internship with departmental affiliates at National Institutes of Health and other regional universities. Contact department chairman for available placements, requirements and openings.

Contact department for information to register for this course.

HESP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HESP829 **Clinical Internship Residency**

Credits: 1-9 Grading Method: Regular, Audit

Off-Campus, full-time (30-40 hours/week) clinical externship in Audiology at regional and national institutions.

1301	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 30)
3201	Nicole Nguyen Contact instructor or department for details.	Seats (Total: 10)

HESP849 **Capstone Research Project I**

Credits: 2 Grading Method: Regular

First of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves individual study and/or supervised lab work with mentor, preparation of research proposal (including IRB protocol if required), and attendance at Capstone Research Project Workshop.

Contact department for information to register for this course.

HESP859 **Capstone Research Project II**

Credits: 1-2 Grading Method: Regular

Second of two-course sequence leading to the final research requirement for the Doctor of Audiology (Au.D.) degree; involves final data collection, analysis and presentation of results or completion of scholarly paper under the direction of the faculty mentor.

Contact department for information to register for this course.

HESP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HESP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HGLO Honors Global Communities Fall 2022

HGLO100 **The Student in the University: Global Communities**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be enrolled in Honors Global Communities Living-Learning Program. Credit only granted for: BSGC100 or HGLO100. Formerly: BSGC100.

Students will develop a sense of community within the program, become familiar with campus resources, gain skills and information to prepare for the Global Experience Semester, and explore the surrounding international community.

0101	Joyce Koo Tu 9:30am - 10:45am	Seats (Total: 22) DOR 0134
0102	Brandon Harris Tu 11:00am - 12:15pm	Seats (Total: 22) DOR 0134
0103	Javonni McGlaurin Tu 2:00pm - 3:15pm	Seats (Total: 22) DOR 0134
0104	Natalie Vinski Ibrahim Tu 12:30pm - 1:45pm	Seats (Total: 22) DOR 0134

HGLO101 **Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Restriction: Must be in Honors Global Communities Living-Learning program. Credit only granted for: HGLO101 or BSGC101. Formerly: BSGC101.

Is globalization sustainable? This course is an interdisciplinary exploration of globalization and anti-globalization through analysis of its impact on economic, political, social and environmental affairs. It introduces different frameworks for evaluating whether contemporary globalization is sustainable in its current form.

0101	Sarah Croco MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 20) TWS 0310 DOR 0134	Discussion
0102	Sarah Croco MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 20) TWS 0310 DOR 0134	Discussion
0103	Sarah Croco MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 20) TWS 0310 DOR 0134	Discussion
0104	Sarah Croco MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 20) TWS 0310 DOR 0134	Discussion

HHUM Honors Humanities Fall 2022

HHUM105 **Honors Humanities: Introduction to the Arts and Humanities**

Credits: 3 Grading Method: Regular CORE: HL General Education: DSHU

Restriction: Must be an entering freshmen in the Honors Humanities Program. Credit only granted for: ARHU105 or HHUM105. Formerly: ARHU105.

Introduction to the university, the different fields of the arts and humanities, and the history of how the university and the humanities have evolved across the world from ancient times to the present. Primary emphasis on reading and discussion of literary artifacts to assess the meaning and social status of the arts and humanities in the past and their personal and social value for the future.

0101	Randy Ontiveros MW 10:00am - 10:50am F 9:00am - 9:50am	Seats (Total: 19) ESJ 2212 ANA 0120	Discussion
0102	Randy Ontiveros MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 19) ESJ 2212 TWS 1313	Discussion
0103	Randy Ontiveros MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 19) ESJ 2212 ASY 2309	Discussion
0104	Randy Ontiveros MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 19) ESJ 2212 ANA 0120	Discussion

HHUM205 **Second Year Seminar in Honors Humanities**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DVUP

Credit only granted for: ARHU205 or HHUM205. Formerly: ARHU205.

Seminar on basic issues and methodologies in the humanities and arts.

0101	Kathleen Spanos TuTh 3:30pm - 4:45pm *Dancing in the World.*	Seats (Total: 18) PAC 3730
0103	Aneta Georgievska-Shine Tu 2:00pm - 4:30pm *Art and Medicine Renaissance/Baroque.*	Seats (Total: 15) ASY 3217
0104	Marilyn Matar TuTh 11:00am - 12:15pm *Borders, Exiles, and War.*	Seats (Total: 22) ANA 0120
0105	Ingrid Satelmajer TuTh 12:30pm - 1:45pm *Creative Lives in a Working World.*	Seats (Total: 18) ANA 0120
0106	Annika Thiem TuTh 12:30pm - 1:45pm *Negotiating (In)Justice Through Fiction.*	Seats (Total: 15) JMZ 1122
0107	Dorith Grant-Wisdom TuTh 2:00pm - 3:15pm *Human Dimensions of Globalization and Resistance.*	Seats (Total: 15) ANA 0120

HHUM328 **Internship in Honors Humanities**

Credits: 1-3 | Grading Method: Regular

Supervised service-learning in Honors Humanities.

0101	Sarah Humud Class time/details on ELMs	Seats (Total: 12) ONLINE
0102	Sarah Humud Class time/details on ELMs	Seats (Total: 12) ONLINE

0103	Sarah Humud	Seats (Total: 12)
	Class time/details on ELMs	ONLINE

HHUM329 **Undergraduate Teaching Assistantship**

Credits: 1-3 Grading Method: Regular

Supervised pedagogical service-learning in the Honors Humanities curriculum.

0101	Randy Ontiveros	Seats (Total: 8)
	Class time/details on ELMs	ONLINE

HISP Historic Preservation Fall 2022

HISP600 **History, Theory, and Practice of Historic Preservation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program.

An introduction to history, theory and practice of historic preservation covered through readings, discussions, presentations, class projects, and field trips.

0101	John Sprinkle	Seats (Total: 20)
	Th 7:00pm - 9:40pm	ARC 1117

HISP611 **Historical Research Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP610 or HISP611.

Research methods used by professional historic preservationists to identify and record historic structures and sites. Emphasizes inter/multidisciplinary nature of contemporary preservation practice using archival and ethnographic evidence as a basis for establishing significance.

Department permission required.

0101	John Sprinkle	Seats (Total: 15)
	W 7:00pm - 9:40pm	ARC 1125

HISP629 **Independent Studies in Historic Preservation**

Credits: 1-3 Grading Method: Regular, Audit

Individual Instruction course.

0101	Donald Linebaugh TBA	Seats (Total: 1) ARC 1117

HISP650 **Historic Preservation Studio Workshop**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: HISP600; and permission of ARCH-Historic Preservation Program. Restriction: Must be in a major in ARCH-Historic Preservation Program.

Students carry out a group preservation project in a local community, from inception and problem formulation through completion. Guided carefully by a faculty team, students will conduct research, interact with communities, perform analyses, and propose solutions for an issue or problem of direct relevance to a local community and client group.

Department permission required.

0101	Stefan Woehlke, Michelle Magalong TuTh 4:00pm - 6:40pm	Seats (Total: 15) ARC 1117

HISP655 **American Vernacular Architecture**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP655 or HISP619V. Formerly: HISP619V.

History, theory, and practice of American vernacular architecture including a review of common building technologies, structure, and style, and focusing on methods and approaches for recording, documenting and analyzing these historic resources.

Prerequisite: permission of department. Class will meet some sessions at Bostwick House.

0101	Donald Linebaugh Tu 7:00pm - 9:40pm Contact instructor or department for details.	Seats (Total: 15) ARC 1117

HISP660 **Internship in Historic Preservation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Formerly: HISP619.

Students will secure a summer internship with an organization engaged in historic preservation work (this can be a public agency, nonprofit, or private firm). The students will formulate a plan of work and a series of pedagogical goals to satisfy both the practical needs of the project and the academic requirements for the course.

0101	Donald Linebaugh	Seats (Total: 10)
	Contact instructor or department for details.	

HISP680 **Preservation Economics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program. Credit only granted for: HISP619N or HISP680. Formerly: HISP619N.

Students are introduced to a range of economic theories, methods, and issues that must be considered in the practice of historic preservation. Case studies related to community economic development, adaptive reuse, tax credit programs, project finance, and land use will be presented.

0101	Cristina Amoruso	Seats (Total: 15)
	M 7:00pm - 9:40pm	ARC 1117

HISP701 **Certificate Portfolio Project**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Prerequisite: Permission of ARCH-Historic Preservation Program.

Students will gather samples of their work and craft a synthetic statement on their experiences in their HISP certificate courses (for example, picking up on themes such as community involvement, diversity of practice, affordable housing, or sustainability), and the ways in which they have integrated historic preservation into their thinking and practice in their home discipline.

Department permission required.

0101	Donald Linebaugh	Seats (Total: 10)
	TBA	ARC 1117

HISP710 **Final Project in Historic Preservation I**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Credit only granted for: HISP700 or HISP710. Formerly: HISP700.

An independent, applied research project investigating the preservation of a particular site or a specialized issue in historic preservation. This is part one of a two-semester sequence and involves developing the project proposal and bibliography.

Department permission required.

0101	Donald Linebaugh	Seats (Total: 10)
	W 7:00pm - 9:40pm	ARC 1117

0102	Ariel Bierbaum	Seats (Total: 1)
	Class time/details on ELMs	ONLINE

HISP711 **Final Project in Historic Preservation II**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Credit only granted for: HISP700 or HISP711. Formerly: HISP700.

An independent, applied research project invesitgating the preservation of a particular site or a specialized issue in historic preservation. This is part two of a two semester sequence and involves project research and writing.

Department permission required.

0101	Donald Linebaugh	Seats (Total: 10)
	TBA	ARC 1117
0102	Ariel Bierbaum	Seats (Total: 1)
	Class time/details on ELMs	ONLINE

HIST History Fall 2022

HIST108C **Martin Luther King Jr.**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Cross-listed with: AASP298M, AMST189C. Credit only granted for: HIST108C, AASP298M, or AMST189C.

Examines the life and work of Martin Luther King, Jr. We immediately rethink the image of King who liberals and conservatives construct as a dreamer of better race relations. We engage the complexities of an individual, who articulated a moral compass of the nation, to explore racial justice in post-World War II America. This course gives special attention to King's post-1965 radicalism when he called for a reordering of American society, an end to the war in Vietnam, and supported sanitation workers striking for better wages and working conditions. Topics include King's notion of the "beloved community", the Social Gospel, liberalism, "socially conscious democracy", militancy, the politics of martyrdom, poverty and racial justice, and compensatory treatment. Primary sources form the core of our readings.

0101	Quincy Mills	Seats (Total: 15)
	TuTh 9:30am - 10:45am	KEY 0117

HIST110 **The Ancient World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient Near East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration.

0101	Elizabeth Conner MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0102	Elizabeth Conner MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0103	Elizabeth Conner MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
FC01	Elizabeth Conner MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) TLF 1101	

HIST111 The Medieval World

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DVUP

The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.

0101	Christopher Halsted MW 1:00pm - 1:50pm F 9:00am - 9:50am	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion
0102	Christopher Halsted MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion
0103	Christopher Halsted MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion
0104	Christopher Halsted MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion

0105	Christopher Halsted MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion
0106	Christopher Halsted MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 23) JMZ 0220 TLF 1103	Discussion

HIST120 **Islamic Civilization**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHU

Cross-listed with: RELS120. Credit only granted for: HIST120 or RELS120.

Introduction to society and culture in the Middle East since the advent of Islam: as a personal and communal faith; as artistic and literary highlights of intellectual and cultural life; and as the interplay between politics and religion under the major Islamic regimes.

0101	Rachel Schine MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0102	Rachel Schine MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1101	Discussion
0103	Rachel Schine MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1101	Discussion

HIST122 **African Civilization to 1800**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

History of Africa from earliest times to 1800. Topics of study include origins of African societies, Nile Valley civilization, medieval African states and societies, Islam, oral traditions, African slavery and the slave trade, and early African-European interactions.

0101	Paul Landau TuTh 9:30am - 10:45am	Seats (Total: 40) KEY 0126	

HIST133 **God Wills It! The Crusades in Medieval and Modern Perspectives**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, SCIS

Cross-listed with: RELS133. Credit only granted for: HIST133, RELS133 or RELS289D. Formerly: RELS289D.

An examination of the identities and convictions both of the Western Europeans who participated in the Crusades and of the Easterners (Muslim, Christian, and Jewish) whom they encountered in the Holy Land. Focuses on the era of the first four great Crusades, from about 1095 to 1215. Consideration of the cultural impact of these movements on both Western Europe and the Middle East.

0101	Janna Bianchini MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0102	Janna Bianchini MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0103	Janna Bianchini MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion

HIST134 **Spies, Assassins, Martyrs, and Witches: Famous Trials in American History**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH	General Education: DSHU, SCIS

Examination of some of the most famous trials in American history and their enduring hold on the imagination.

0101	Michael Ross TuTh 9:30am - 10:20am W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2108	 Discussion
0102	Michael Ross TuTh 9:30am - 10:20am W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2108	 Discussion
0103	Michael Ross TuTh 9:30am - 10:20am W 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2108	 Discussion
0104	Michael Ross TuTh 9:30am - 10:20am W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2108	 Discussion

0105	Michael Ross TuTh 9:30am - 10:20am Th 11:00am - 11:50am	Seats (Total: 23) KEY 0106 EDU 3236		Discussion
0106	Michael Ross TuTh 9:30am - 10:20am Th 12:30pm - 1:20pm	Seats (Total: 23) KEY 0106 EDU 3236		Discussion
0107	Michael Ross TuTh 9:30am - 10:20am W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 1103		Discussion
0108	Michael Ross TuTh 9:30am - 10:20am W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 1103		Discussion
0109	Michael Ross TuTh 9:30am - 10:20am Th 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 1103		Discussion

HIST134S **Spies, Assassins, Martyrs, and Witches: Famous Trials in American History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHU, SCIS

Examination of some of the most famous trials in American history and their enduring hold on the imagination.

0201	Michael Ross TuTh 9:30am - 10:20am W 11:00am - 11:50am *Restricted to students in the M-Law program.*	Seats (Total: 27) KEY 0106 TLF 1101		Discussion

HIST187 **God, Land, Power, and the People: Moral Issues in the Jewish Historical Experience**

Credits: 3 | Grading Method: Regular | General Education: DSHS, DSHU, DVUP, SCIS

Cross-listed with: JWST187. Credit only granted for: HIST187 or JWST187.

Examines the complicated relationship between theology, nationalism, sovereignty, and the ethical exercise of social control using case studies drawn from the Jewish historical experience. The universal and age-old issues implicit in the exercise of power have gained special moral force for Jews with the creation of the State of Israel, a Jewish and a democratic state with substantial non-Jewish minorities and hundreds of thousands of non-citizen subjects. Can these be reconciled? Jewish efforts over the ages and in recent times to define justice provide concrete examples through which to examine and discuss crucial abstract principles.

0101	Bernard Cooperman TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0102	Bernard Cooperman TuTh 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0103	Bernard Cooperman TuTh 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion

HIST200 **Interpreting American History: Beginnings to 1877**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS, DSHU

Credit only granted for: HIST156 or HIST200. Formerly: HIST156.

The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

0101	Robert Chiles TuTh 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 23) KEY 0106 EDU 3236	Discussion
0102	Robert Chiles TuTh 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 23) KEY 0106 LEF 1171	Discussion
0103	Robert Chiles TuTh 11:00am - 11:50am Th 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TWS 1321	Discussion
0104	Robert Chiles TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 KEY 0126	Discussion

0105	Robert Chiles TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 KEY 0126	Discussion
0106	Robert Chiles TuTh 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 KEY 0126	Discussion
FC01	Howard Smead MW 3:30pm - 4:15pm Class time/details on ELMs *Restricted to students in Freshmen Connection.*	Seats (Total: 26) KEY 0125 ONLINE	

HIST201 **Interpreting American History: From 1865 to the Present**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SH	General Education: DSHS, DSHU, DVUP

Credit only granted for: HIST157 or HIST201. Formerly: HIST157.

The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

0101	Howard Smead MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0102	Howard Smead MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0103	Howard Smead MW 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0104	Howard Smead MW 12:00pm - 12:50pm W 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0105	Howard Smead MW 12:00pm - 12:50pm W 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1103	Discussion

0106	Howard Smead MW 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0107	Howard Smead MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0108	Howard Smead MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0109	Howard Smead MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 2103	Discussion
0201	Robert Chiles TuTh 12:30pm - 1:20pm Tu 9:30am - 10:20am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0202	Robert Chiles TuTh 12:30pm - 1:20pm Tu 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0203	Robert Chiles TuTh 12:30pm - 1:20pm Tu 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 1103	Discussion
0204	Robert Chiles TuTh 12:30pm - 1:20pm Th 9:30am - 10:20am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0205	Robert Chiles TuTh 12:30pm - 1:20pm Th 11:00am - 11:50am	Seats (Total: 23) KEY 0106 TLF 2108	Discussion
0206	Robert Chiles TuTh 12:30pm - 1:20pm Th 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2108	Discussion

FC02	Robert Chiles TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 26) KEY 0126

HIST204 **Introduction to the History of Science**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Credit only granted for: HIST174 or HIST204. Formerly: HIST174.

An exploration of the roots of modern science from the ancient Greeks through the medieval and early modern periods. Focus on the men and women who helped to create the sciences and to change public perceptions of their disciplines.

0101	Melinda Baldwin MWF 1:00pm - 1:50pm	Seats (Total: 40) ESJ 1309

HIST208Q **Historical Research and Methods Seminar; How to Rule the World": Political Theory and Governance in the Ancient Mediterranean**

Credits: 3 | Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Dustin Cranford Tu 9:30am - 11:20am Contact instructor or department for details.	Seats (Total: 10) TLF 2101
0201	Dustin Cranford Tu 12:30pm - 2:20pm Contact instructor or department for details.	Seats (Total: 10) TLF 2101

HIST208R **Historical Research and Methods Seminar; Strange But Not a Stranger: Pre-Modern Minorities**

Credits: 3 | Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Mikol Bailey W 10:00am - 11:50am Contact instructor or department for details.	Seats (Total: 10) TLF 2101
0201	Mikol Bailey W 1:00pm - 2:50pm Contact instructor or department for details.	Seats (Total: 10) TLF 2101

HIST208T **Historical Research and Methods Seminar; Can a Movie be "Accurate"?: American Films as Historical Sources**

Credits: 3 | Grading Method: Regular, Pass-Fail

Reading and research skills and methods. Research papers will be based on the topic of the seminar.

0101	Jane Polcen Th 9:30am - 11:20am Class time/details on ELMs	Seats (Total: 10) ONLINE ONLINE	Discussion
0201	Jane Polcen Th 12:30pm - 2:20pm Class time/details on ELMs	Seats (Total: 10) ONLINE ONLINE	Discussion

HIST213 **History of Sexuality in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS

Cross-listed with: WGSS298L. Credit only granted for: HIST213, WMST298L or WGSS298L.

Explores the social construction of sexualities from the first colonial settlement to the modern era in the United States. Analyzes the implications of these understandings for power relations in U.S history.

0101	Clare Lyons MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 23) TWS 0320 TWS 1321	Discussion
0102	Clare Lyons MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 TLF 2108	Discussion
0103	Clare Lyons MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 23) TWS 0320 TLF 2108	Discussion

HIST215 **Women in Western Europe to 1750**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Credit only granted for: HIST215 or HIST219A. Formerly: HIST219A.

An exploration of the theories and rhetoric about the nature and existence of women in the West, focusing on the experience of women from the hegemony of Classical Greece to the French Revolution, an era that marks the beginning of a continuous process of change. Emphasis will be on the period between 1250 and 1750, when the Western European world was fundamentally altered in every aspect and in every level of society, culture, and government.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0103

HIST219E **Special Topics in History; Visual Cultures of Islam**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Crosslisted with ARTH389L, AAST298B, PERS298E, and RELS219E. Credit granted for HIST219E, ARTH389L, AAST298B, PERS298E, or RELS219E. Visual Cultures of Islam is part of the Digital Islamic Studies Curriculum (digitalislam.umich.edu). This course is taught by an expert in the field of Islamic Art at the University of Michigan, and digitally shared with the University of Maryland. The course explores definitions of "Islamic" art and investigates various visual cultures of Islam around the world from the 7th to the 20th century. The course meets twice a week in real time using video conferencing technology and students are able to enroll directly at Maryland for course credit.

0101	Instructor: TBA	Seats (Total: 12)
	TuTh 11:30am - 1:00pm	TLF 2100

HIST219J **Modern India: From the British Raj to the World's Largest Democracy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D General Education: DSHS, DVUP

Credit only granted for: HIST219J or HIST247. Formerly: HIST219J.

Surveys the making of modern India, as well as Pakistan and Bangladesh, from the onset of colonialism in the 18th century to the present day. Focuses on three key themes: state formation and the persistence of regional identities; the negotiation of religious, ethnic, caste, and gender differences; and economic development and inequality.

Surveys the making of modern India, as well as Pakistan and Bangladesh, from the onset of colonialism in the 18th century to the present day. Focuses on three key themes: state formation and the persistence of regional identities; the negotiation of religious, ethnic, caste, and gender differences; and economic development and inequality.

0101	Mircea Raianu	Seats (Total: 20)	
	Class time/details on ELMs M 2:00pm - 3:15pm	ONLINE KEY 0100	Discussion

0102	Mircea Raianu	Seats (Total: 20)	
	Class time/details on ELMs W 2:00pm - 3:15pm	ONLINE KEY 0100	Discussion

HIST221 **Asian American History**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with: AAST201. Credit only granted for: AAST201 or HIST221.

Introduction to the history of Asian Americans and Asians in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans in World War II, the Cold War, and the issues in the civil rights & post-civil rights era.

0101	Patrick Chung	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	MTH B0421

HIST224 **Modern Military History, 1494-1815**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Survey of global military history from the European "discovery" of the Americas to the end of the Napoleonic Wars. Explores how the creation of professional armies, advancement of weapons technology, and evolution of military-civilian relations in Europe during these three centuries sparked the "Rise of the West".

0101	Patrick Chung	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ATL 1114

HIST232 **The Historical Development of London**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

Restriction: Permission of Study Abroad Office required. Credit only granted for: GNED288 and HIST232. Formerly: GNED288.

Study Abroad in London, England. The history of London, beginning with its foundation by the Romans, continuing with the city's progressive political and cultural domination of England, the British Isles and the British Empire, and concluding with a look at the city in the 20th century. Students look at London through the eyes of contemporaries and historians while forming their own impressions of the city during course-based walking tours of the city.

Contact department for information to register for this course.

HIST234 **Invaders, Conquerors, Usurpers: A History of Pre-Modern Britain to 1485**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

British history from Roman times to the 15th century. The Anglo-Saxon, Scandinavian, and Norman invasions; the coming of Christianity; Magna Carta, the development of Parliament, legal institutions, and the Common Law; the decline of medieval kingship.

0101	Sabrina Baron	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	KEY 0103

HIST236 From Peacocks to Punks: Modern Britain from 1688 to Today

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

British history from the Glorious Revolution of 1688 to the present. The revolution of 1688; the structure of 18th-century society and politics; economic and social change in the Industrial Revolution; 19th- and 20th-century political and social reform; imperialism; the impact of the First and Second World Wars on British society.

0101	Julie Taddeo	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0103

HIST237 Russian Civilization

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS

An overview of Russian history stressing the main lines of development of the Russian state and the evolution of Russian culture to the present day.

0101	Mikhail Dolbilov	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0116

HIST250 History of Colonial Latin America

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

Cross-listed with: LACS250. Credit only granted for: LASC250, HIST250, OR LACS250. Formerly: LASC250.

Introductory survey of the history of Latin America from pre-Columbian Indian cultures to the beginning of the wars for independence (ca. 1810), covering cultural, political, social, and economic developments. Major themes include conquest, colonialism, indigenous culture, African slavery, religion, race and ethnicity, and gender ideologies.

0101	David Sartorius	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	KEY 0116

HIST254 African-American History to 1865

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DVUP

Cross-listed with: AASP298C. Credit only granted for: HIST254 or AASP298C.

Survey of the principal developments in the history and culture of the peoples of African descent in colonial North America and the United States to 1865. Examines the African past, the Atlantic slave trade, variation in slavery, the growth of free black communities, the transformations of families and cultural forms, and patterns of resistance.

Cross-listed with AASP298C. Credit will be granted for AASP298C or HIST 254.

0101	Christopher Bonner	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0116

HIST266 The United States in World Affairs

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH | General Education: DSHS

A study of the United States as an emerging world power and the American response to changing status in world affairs. Emphasis on the relationship between internal and external development of the nation.

0101	Howard Smead	Seats (Total: 40)
	TuTh 2:00pm - 3:15pm	KEY 0126

HIST269 Special Topics in Study Abroad II

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269M Special Topics in Study Abroad II; History of Modern Italy

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269O Special Topics in Study Abroad II; Mediterranean Culture and History

Credits: 1-6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST269Y Special Topics in Study Abroad II; Rome: Republic and Empire

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST281 Inventing Traditions: The Making of Rabbinic Judaism

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DSHU, SCIS

Cross-listed with: JWST230, RELS230. Credit only granted for: HIST281, JWST230, RELS219C or RELS230. Formerly: RELS219C.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

0101	Hayim Lapin MW 2:00pm - 3:15pm	Seats (Total: 30) EGR 1104	

HIST284 East Asian Civilization I

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DVUP

An interdisciplinary survey of the development of East Asian cultures. An historical approach drawing on all facets of East Asian traditional life, to gain an appreciation of the different and complex cultures of the area.

0101	Ting Zhang MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 23) TYD 1102 KEY 0126	Discussion
0102	Ting Zhang MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 23) TYD 1102 KEY 0126	Discussion
0103	Ting Zhang MW 11:00am - 11:50am F 2:00pm - 2:50pm	Seats (Total: 23) TYD 1102 KEY 0126	Discussion

HIST289O Lawlessness: From Pirates to Body-snatchers, Exploring the Legitimacy of Illicit Activity

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Explores motives of and responses to the lawless behavior of pirates, body snatchers, bandits, vigilantes, smugglers and others worldwide from the 1500s to today.

0101	Anne Rush TuTh 12:30pm - 1:20pm F 10:00am - 10:50am	Seats (Total: 23) SHM 2102 SYM 0209	Discussion
0102	Anne Rush TuTh 12:30pm - 1:20pm F 11:00am - 11:50am	Seats (Total: 23) SHM 2102 KEY 0121	Discussion
0103	Anne Rush TuTh 12:30pm - 1:20pm F 1:00pm - 1:50pm	Seats (Total: 23) SHM 2102 SYM 0209	Discussion
FC01	Anne Rush TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 26) TLF 1103	

HIST289R **Pocketbook Politics: A History of American Buying and Selling**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Provides a thematic approach to consumerism as it emerged in the United States over the course of three centuries. The history of consumption is a prism through which many aspects of social and political life may be viewed. How does what we wear, what we listen to, or what we eat shape our identities?

0101	Katarina Keane MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 23) SQH 1120 SYM 0209	Discussion
0102	Katarina Keane MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 23) SQH 1120 KEY 0121	Discussion
0103	Katarina Keane MW 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 23) SQH 1120 SQH 2120	Discussion

HIST289T **Jesus, Mani, and Muhammad: The Dynamics of New Religious Movements**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHU, DVUP, SCIS

Cross-listed with: RELS273. Credit only granted for: RELS273 or RELS289M or HIST289T. Formerly: RELS289M.

We examine three significant ancient religious figures: Jesus (d. 30s CE), Mani (d. 276 CE), and Muhammad (d. 632). All three were founders of long-lasting religions that were part of a dramatic change in the society and religion of the ancient world. Special areas of focus: the biographies of these founding figures, and how we know them; a historical approach to religious founders; and the sociology of new religious movements.

0101	Hayim Lapin MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) TWS 1100 TLF 2103	Discussion
0102	Hayim Lapin MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 23) TWS 1100 TLF 2103	Discussion
0103	Hayim Lapin MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 23) TWS 1100 TLF 2103	Discussion

HIST299 **Directed Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level surveys in the Department of History.

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST310 **History of South Africa**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Formerly: HIST419E.

Explores the roots of Apartheid and the anti-Apartheid movement from precolonial times to the present: the social history of work and identity, the rise of kingdoms (Zulu, Sotho), conquest and colonial administration, urban and rural mass politics, gender relations, and the transition to democracy.

0101	Paul Landau TuTh 2:00pm - 3:15pm	Seats (Total: 30) TLF 1101

HIST319J **Special Topics in History; Confederate Monuments in Historical Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Leslie Rowland	Seats (Total: 20)
	TuTh 5:00pm - 6:15pm	ONLINE

HIST326 **The Roman Republic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST111 or HIST110; or permission of instructor.

Ancient Rome 753-44 B.C., from its founding to the assassination of Julius Caesar. Rome's conquest of the Mediterranean world, the social and political forces that brought it about, and the consequent transformation and decline of the Republic.

0101	Jeremy Simmons	Seats (Total: 30)
	MWF 10:00am - 10:50am	SQH 1103

HIST328L **Selected Topics in History; Empires, Revolutions, and Cold Wars: Modern Central and Eastern Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

We live in an international system dominated by accusations of growing Russian power and meddling in the affairs of other countries -- from the civil war that has raged in Ukraine since 2013, to the US presidential elections of 2016. These stories show that Central and Eastern Europe -- a region largely taken for granted since the end of the Cold War -- has once again become a battleground for the future of the international order. This course will both offer a broad overview of that region's history since the late 1700s -- through empires, revolutions, and cold wars -- and provide students with the critical tools to develop their own views on that history.

0101	Piotr H Kosicki	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ONLINE

HIST329E **Special Topics in History; Black Women in United States History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with WMST314 and HIST329E. Credit granted for AASP313, HIST329E, or WMST314. Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	ONLINE

HIST329J **Special Topics in History; African American Public History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with AASP398V and AMST328F. Credit only granted for HIST329J, AASP398V, or AMST328F. This course analyzes the field of public history through the lens of African American history, considering the myriad ways beyond the classroom that African American history is circulated and consumed by the general public. By examining museums, historic sites, monuments, films and documentaries, and the digital landscape, students will examine and critique how historical narratives focusing on the experiences of peoples of African descent in the United States have been constructed in public spaces.

0101	Dennis Doster Tu 5:00pm - 6:15pm Th 5:00pm - 6:15pm	Seats (Total: 25) ONLINE TLF 1101

HIST329X **Special Topics in History; Mobility in History: Planes, Trains, and Automobiles**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Thomas Zeller TuTh 11:00am - 12:15pm	Seats (Total: 30) TLF 1101

HIST331 **Europe in the High Middle Ages: 1000-1500**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: RELS341. Credit only granted for: HIST331 or RELS341.

Medieval civilization in the 11th through 15th centuries. Emphasis on cultural and political developments of the high Middle Ages with study of the principal sources of medieval thought and learning, art and architecture, and political theory prior to the Renaissance.

0101	Janna Bianchini MW 2:00pm - 3:15pm	Seats (Total: 30) ASY 1213

HIST332 **Renaissance Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST112 or HIST111; or permission of instructor. Cross-listed with: RELS342. Credit only granted for: HIST332 or RELS342.

Intellectual developments in Italy and Northern Europe from 1300 to 1550 and their influence on the arts and religion; social and economic trends, including the rise of the commercial economy in cities; the family and the role of women in society; expansion of Europe overseas and the beginnings of colonization; emergence of the state and consequent changes in political theory.

0101	Stefano Villani TuTh 3:30pm - 4:45pm	Seats (Total: 30) TLF 1101

HIST339A **Special Topics in History; History of Socialism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

0101	David Sartorius	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 3120

HIST339B **Special Topics in History; Ethnicity, Nationalism, and the Jews**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

Cross-listed with JWST319F. Credit only granted for HIST339B or JWST319F. Explores the Jewish ethnic identity and the various ways that Jews fashioned themselves into a nation in the nineteenth and twentieth centuries. The course will deal with Zionism, but also with Jewish Socialism (the Bund), diaspora nationalism, and other movements primarily in Eastern Europe which claimed that Jews were a nation entitled to national rights. We will also deal with how Jews positioned themselves as a nation in the complex multinational societies of East Central and Eastern Europe. The course will also deal with Jewish ethnicidentity in America and creating a Jewish nation in Israel.

0101	Marsha Rozenblit	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 0122

HIST339L **Special Topics in History; Minorities, Minoritization, and Sectarianism in the Modern Middle East**

Credits: 3 Grading Method: Regular

Thematic exploration of a topic in history.

Cross-listed with RELS319B. Credit only granted for HIST339L or RELS319B. Minorities and Sectarianism are two categories that are commonly used in contemporary political and social analysis of the Modern Middle East. The course will look at the historical events and processes that have led to the emergence of such social structures that are more often the product of modern politics than markers of essential historical difference. We will analyze the roots of ethnic and religious diversity and their manipulation by colonial and post-colonial governments, and at the politics of self-assertion by minority groups in the Middle East and North Africa during the twentieth and twenty-first centuries.

0101	Peter Wien	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0100

HIST339R **Special Topics in History; Ancient Conceptions of the World and its Peoples**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

An examination of how ancient cultures including ancient Egypt, the Greco-Roman Mediterranean, India, and China envisioned the world in which they lived and the diverse peoples that inhabited it. Students will explore a variety of textual and material sources; they will investigate not only how different ancient cultures understood the mechanics of the universe, but how they envisioned and represented those who dwelled beyond the realm of the familiar.

0101	Jeremy Simmons	Seats (Total: 30)
	MW 2:00pm - 3:15pm	VMH 1207

HIST339T **Special Topics in History; History of Iraq**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in history.

0101	Peter Wien	Seats (Total: 30)
	TuTh 9:30am - 10:45am	KEY 0100

HIST355 **Civil War and the Rise of Industrialization, 1860-1900**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST200, HIST201, HIST210, HIST213, HIST222, HIST254, HIST255, or HIST275; or must have completed HIST156 or HIST157; or permission of instructor. Credit only granted for: HIST355 or HIST364.

Civil War, sectional and class conflicts and their impact on American life and institutions from the beginning of the Civil War through the Gilded Age; social, economic, and political reconstruction of the Union; industrialization, urbanization, and technological changes.

0101	Robert Chiles	Seats (Total: 40)
	TuTh 9:30am - 10:45am	KEY 0116

HIST357 **Recent America: 1945-Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST213, HIST222, HIST255, or HIST275; or must have completed HIST157; or permission of instructor.

American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

0101	Howard Smead	Seats (Total: 40)
	MW 2:00pm - 3:15pm	KEY 0126

HIST361 **Metropolitan Change and Modern America: Cities, Suburbs, Hinterlands**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST201, HIST211, HIST222, or HIST255; or must have completed HIST157; or permission of instructor. Credit only granted for: HIST419B or HIST361. Formerly: HIST419B.

An exploration of the forces that have transformed metropolitan and rural life since the mid-19th century. What role have politics, policy, economics, and ideology/culture played in creating an urbanized and then a "suburbanized" nation?

0101	David Freund TuTh 11:00am - 12:15pm	Seats (Total: 40) KEY 0126

HIST369F **Special Topics in Study Abroad III; Caesar, Cicero and the Collapse of the Roman Republic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

HIST373 **Jews in Early Modern Times 1450-1750**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST282 or JWST234. Cross-listed with JWST333. Credit only granted for: JWST333, HIST373, HIST418C/JWST419C (Fall 2006, Fall 2004) or HIST419C/JWST419Y (Spring 2001). Formerly: HIST419C.

Emergence of new powerful population centers, religious and cultural creativity, new forms of community, and radical messianic movements.

0101	Bernard Cooperman TuTh 11:00am - 12:15pm	Seats (Total: 30) ATL 2416

HIST375 **Modern Jewish History II: World Jewry Since 1870**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with JWST344. Credit only granted for: HIST375 or JWST344.

Social, political, economic, and cultural change in the Jewish world since 1870. Emphasis on emancipation, assimilation, and new forms of Jewish identity in Western and Eastern European Jewry from the 19th Century to the present.

0101	Marsha Rozenblit TuTh 9:30am - 10:45am	Seats (Total: 30) TYD 1114

HIST377 **Mizrahi Identity in Israel**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: ISRL330, JWST334. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	MW 11:00am - 12:15pm	VMH 1107

HIST386 **Experiential Learning**

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-History department; and junior standing or higher.

The History Department's Internship program. Pre-professional experience in historical research, analysis, and writing in a variety of work settings.

Contact department for information to register for this course.

HIST395 **Honors Colloquium I**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-History department; and must be in History program.

History and theory: the conceptual underpinnings of the historical discipline. Students evaluate several contrasting theories of history. Prerequisite for other honors courses.

0101	Robyn Muncy	Seats (Total: 10)
	W 10:00am - 11:50am Contact instructor or department for details.	TLF 2100

HIST398 **Honors Thesis I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Individual research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST399 **Honors Thesis II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Individualized research and preparation of History Honors Theses.

Contact department for information to register for this course.

HIST405 **Environmental History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An introduction to the key issues and methods of environmental history. The scope of the subject is discussed, as well as its relationship with other disciplines, such as ecology, anthropology, and geography. A primary focus is environmental change in history with emphasis on the American experience.

0101	Thomas Zeller Tu 2:00pm - 4:30pm	Seats (Total: 20) HBK 0108

HIST406 **History of Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The changing character of technology in modern history, beginning with the Middle Ages. Concentrates on the Industrial Revolution and its aftermath, the nature of technological knowledge and the sources of technological change.

0101	David Sicilia MW 2:00pm - 3:15pm	Seats (Total: 30) TLF 1101

HIST408C **Senior Seminar; Debating Slavery Law & Power in Early America & the British Empire**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Permission of department required.

0101	Holly Brewer Th 12:30pm - 2:20pm Contact instructor or department for details.	Seats (Total: 12) TLF 2103

HIST408F **Senior Seminar; State Secrets: Writing the History of the Central Intelligence Agency**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Permission of department required.

0101	Colleen Woods Tu 12:30pm - 2:20pm Contact instructor or department for details.	Seats (Total: 12) TLF 2108

HIST408R **Senior Seminar; Histories of Print Culture**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail CORE: CS General Education: DSSP

A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

Permission of department required. In this research seminar, senior history majors will write a significant research paper about a printed form of communication.

0101	Melinda Baldwin W 10:00am - 11:50am Contact instructor or department for details.	Seats (Total: 12) TLF 2103

HIST419C **Special Topics in History; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with PERS498M, CMLT679D, PERS689M, RELS429B, WGSS498D, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller W 6:00pm - 8:30pm	Seats (Total: 15) JMZ 1215

HIST419I **Special Topics in History; History of Palestine in Modern Times**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ISRL448O. Credit only granted for HIST419I or ISRL448O. This seminar explores the contested history of Palestine from the 18th century to 1948. Topics covered include the emergence and trajectories of Zionism and Palestinian nationalism, Arab Jews, Palestine s economy, settler colonialism, religiosity and the politics of memory.

0101	Shay Hazkani	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	KEY 0100

HIST419J **Special Topics in History; American Women and the Great Society: The 1960s and Beyond**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Explores the relationship between social movements and public policy in the 1960s and 1970s as well as the legacy of Great Society policies for Americans today. Students will come to understand how social and political change has happened in the past and how they might participate in directing social change now.

0101	Robyn Muncy	Seats (Total: 20)
	MW 2:00pm - 3:15pm	KEY 0117

HIST419P **Special Topics in History; Origins of Ethnic Cleansing in Russia/USSR**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

0101	Mikhail Dolbilov	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	KEY 0100

HIST419T **Special Topics in History; Deindustrialization and Global Capitalism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines the phenomenon of deindustrialization in the context of the global history of capitalism, from the Industrial Revolution in the early 19thc. to the United States in the early 21stc. Topics include technology and automation, loss of manufacturing jobs, and the decline and revitalization of urban areas. Focus on social and cultural changes accompanying the process.

0101	Mircea Raianu	Seats (Total: 15)
	Tu 12:30pm - 3:00pm	TLF 2103

HIST429A **Special Topics in History; Victoria's Secrets: Sex and Class in Nineteenth Century Britain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Queen Victoria, Darwin, Sherlock Holmes and Jack the Ripper: meet some of the Victorians who continue to captivate our historical imagination and learn the truth about sex, class, and race in 19th Century Britain.

0101	Julie Taddeo	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	KEY 0126

HIST429Z **Special Topics in History; American Money: Rethinking Finance and its History**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Standard macroeconomic treatments of money and finance cannot be supported by the historical record. While most textbooks say otherwise, money has its origins in credit instruments, and meanwhile its value and uses are inseparable from the public authority that issues it. We will briefly revisit that well-documented history and debates among scholars about money's origins and nature. Then we'll look at case studies--from the colonial period to the present (from the issue of the first paper bills to Bitcoin)--to examine money's role in shaping American development.

0101	David Freund	Seats (Total: 20)
	Tu 2:00pm - 4:30pm	KEY 0117

HIST453 **Diplomatic History of the United States from 1914**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

American foreign relations in the 20th century. World War I, the Great Depression, World War II, the Cold War, the Korean War, and Vietnam. A continuation of HIST452.

0101	Colleen Woods	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	KEY 0103

HIST466 **Immigration and Ethnicity in the U.S.**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: AAST200, AAST201, AAST222, HIST200, HIST201, HIST221, or HIST222; or must have completed HIST156 or HIST157; or permission of ARHU-History department. Credit only granted for: AAST498L or HIST466.

Seminar exploring historical problems relating to US immigration, race, and ethnicity since 1848, with emphasis on cultural impacts of migration on immigrants, their children, and U.S. society.

0101	Robert Chiles	Seats (Total: 20)
	Th 2:00pm - 4:30pm	KEY 0117

HIST481 **A History of Modern China**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Modern China from 1644 to the People's Republic of China. Emphasis on the coming of the West to China and the various stages of the Chinese reaction.

Contact department for information to register for this course.

HIST482 **History of Japan to 1800**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Traditional Japanese civilization from the age of Shinto mythology and introduction of continental learning down to the rule of military families, the transition to a money economy, and the creation of a townsmen's culture. A survey of political, economic, religious, and cultural history.

0101	Louisa Rubinfien MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0100

HIST499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST601 **History and Contemporary Theory**

Credits: 3 Grading Method: Regular, Audit

An introduction to contemporary theories in philosophy, literary criticism, cultural studies, anthropology, and other fields; and analysis of their usefulness to historians.

0101	Stefano Villani Th 6:00pm - 8:30pm	Seats (Total: 15) TLF 2108

HIST607 **The Teaching of History in Institutions of Higher Learning**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

0101	Quincy Mills Contact instructor or department for details.	Seats (Total: 15)
0201	Holly Brewer Contact instructor or department for details.	Seats (Total: 6)

HIST608A **General Seminar; American History**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

Prerequisite: permission of department.

0101	Clare Lyons W 3:30pm - 6:00pm	Seats (Total: 12) TLF 2100

HIST608C **General Seminar; Readings in European History**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

General seminar in student's major field of study (e.g., U.S.; Women and Gender; International, World, and Comparative; Science and Technology; Latin America) exploring the concentration's major issues, topics, and literature.

0101	Piotr H Kosicki	Seats (Total: 12)
	W 3:30pm - 6:00pm	ONLINE

HIST610 **Introduction to Museum Scholarship**

Credits: 3

Grading Method: Regular, Audit

Cross-listed with: AMST655, ANTH655, INST653. Credit only granted for: AMST655, ANTH655, HIST610, INST728T or INST653.

Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

For Fall 2008: Additionally cross-listed with INST728T. Credit only granted for ANTH655, AMST655, HIST610, or INST728T.

0101	Diana Marsh	Seats (Total: 20)
	Th 2:00pm - 4:40pm	TWS 0330

HIST619A **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619B **Special Topics in History; Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

HIST619I **Special Topics in History; History of Palestine in Modern Times**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

This seminar explores the contested history of Palestine from the 18th century to 1948. Topics covered include the emergence and trajectories of Zionism and Palestinian nationalism, Arab Jews, Palestine s economy, settler colonialism, religiosity and the politics of memory.

0101	Shay Hazkani TuTh 3:30pm - 4:45pm	Seats (Total: 10) KEY 0100

HIST619M **Special Topics in History; Readings in Nineteenth Century US History**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Michael Ross Tu 3:30pm - 6:00pm	Seats (Total: 12) TLF 2100

HIST638E **Special Topics in History; Readings in Black Women's History**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in History.

0101	Elsa Barkley Brown M 6:00pm - 8:30pm	Seats (Total: 12) TLF 2108

HIST688A **Special Topics: Collaborative Curation; The 1856 Project**

Credits: 3 Grading Method: Regular, Audit

This seminar considers the history of curation and curators within the institutional setting of museums and offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years.

Cross-listed with AMST659A, ANTH659A, and INST788A. Credit only granted for AMST659, ANTH659A, HIST688A, or INST788A. Prerequisite: AMST655/ANTH655/HIST610. Recommended: AMST856/ANTH856/HIST810, AMST857/ANTH857/HIST811. Restriction: By permission only. Students enrolled in the MSMC (Museum Scholarship and Material Culture) certificate program will be given priority for enrollment. This seminar not only considers the history of curation and curators within the institutional setting of museums, it offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years. The initial run of this course will focus on the 1856 project at the University of Maryland, which focuses on three main areas of Black Life at and around the University of Maryland - Slavery and the Building of the Campus; Civil Rights, Black Student Activism, and the University; and the Relationship of the University to its Black Neighbors.

0101	Henry Gregory M 7:00pm - 9:40pm	Seats (Total: 15) ASY 4213A

HIST708 **Directed Independent Reading for Comprehensive Examinations I**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST709 **Directed Independent Reading for Comprehensive Examinations II**

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Doctoral Comprehensive Examinations. In consultation with their advisors, students will select a number of books and articles from an approved list. Grading for the course will reflect performance on the written and oral sections of the Comprehensive Examinations.

Contact department for information to register for this course.

HIST799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HIST811 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular, Sat-Fail

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, INST787. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0201	Diana Marsh Contact instructor or department for details.	Seats (Total: 6)
0301	Paul Jaeger Contact instructor or department for details.	Seats (Total: 4)
0401	Mary Sies Contact instructor or department for details.	Seats (Total: 4)
IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 4)

HIST819A **Special Topics in History: Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819B **Special Topics in History: Independent Research**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

Department permission required.

Contact department for information to register for this course.

HIST819M **Special Topics in History: Independent Research; United States History: Reconstruction to the Present**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Individual graduate research in an area not covered by current seminar offerings. The product will be a finished research paper normally based on original materials.

0101	David Sicilia	Seats (Total: 12)
	W 6:00pm - 8:30pm	TLF 2108

HIST898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HIST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSA Health Services Administration Fall 2022

HLSA300 **Introduction to Health Policy and Services**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must be in Public Health Science program; and must have earned a minimum of 60 credits. Credit only granted for: SPHL498P or HLSA300. Formerly: SPHL498P.

A multidimensional view of public health policy and services. Through interactive discussion of assigned readings, team-based learning, and supplementary lecture, students will learn about the nature of and development of policy, public health policy, and financing and delivery of health care services. This course will place a significant emphasis on a team-based learning approach to understanding the health care system and health care reform.

0101	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs W 11:00am - 11:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs W 12:00pm - 12:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs W 2:00pm - 2:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs W 3:00pm - 3:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs F 9:00am - 9:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs F 10:00am - 10:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs F 11:00am - 11:50am	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Neil Sehgal	Seats (Total: 20)	
	Class time/details on ELMs F 12:00pm - 12:50pm	ONLINE SPH 0116B	Discussion
	Restricted to College Park students in the Public Health Science major.		

ESG1	Negin Fouladi M 2:00pm - 4:30pm	Seats (Total: 35) BLD3 4219
	Restricted to Shady Grove students in the Public Health Science major.	

HLSA484 **Redesigning Health Care: Developing a Clinic to Meet Community Needs**

Credits: 3 Grading Method: Regular

Restriction: Must have completed a minimum of 60 credits. Additional information: Two sessions will be on-site at the Mona Clinic in Temple Hills, MD, and the remaining sessions will be taught in the University of Maryland's Academy for Innovation and Entrepreneurship.

Provides an opportunity for students to learn a key entrepreneurial skill, Design Thinking, while helping to build, reshape, redesign and transform delivery of health care in the Mona Center, a new community center and clinic in Prince George's County. This new, modern vision for a health and wellness clinic embraces student involvement in designing, planning and contributing to innovative programs, solutions, and processes to improve the clinic's ability to meet community and patient needs by addressing the social determinants of health as well as traditional clinical health status. Students in the class will develop empathy for patients, providers and other stakeholders, define problems, select a specific problem for intervention, understand problems based on stakeholder input, ideate, reframe and suggest options to solve or address the problem, prototype solutions, test ideas, and make recommendations to inform implementation and ongoing measurement and monitoring of impact.

0101	Stephen Thomas F 10:00am - 12:30pm Class time/details on ELMs	Seats (Total: 24) SPH 0308 ONLINE

HLSA601 **Introduction to Health Systems**

Credits: 3 Grading Method: Regular, Audit

An overview of the U.S. health care system using an interdisciplinary perspective. Students will learn about the financing, delivery, and use of healthcare in a historical, economic, and political context. An emphasis will be given to contemporary policy issues and debates, and there will be a focus on inequality within the U.S. health system.

0102	Elsie Essien Tu 4:00pm - 6:45pm	Seats (Total: 60) SPH 1303
PLH1	Negin Fouladi Class time/details on ELMs	Seats (Total: 30) ONLINE
	Must be in Public Health Practice and Policy, Online.	
PLP1	Negin Fouladi Class time/details on ELMs	Seats (Total: 30) ONLINE
	Must be in Health Administration, Online.	

HLSA611 **Introduction to Health Equity**

Credits: 3 Grading Method: Regular

The emerging field of health equity is concerned with understanding the causes and consequences of social disparities in population health. This course is designed to expose students to the foundational issues in health equity from a variety of perspectives. Through weekly meetings and discussion, students will develop familiarity with the major literature in the field of health equity. The course is divided into three sections: (1) Understanding & Addressing Health Disparities; (2) Disparity Populations; and (3) Solutions in Health Equity. Students will gain understanding of the dimensions and sources of health inequality, including race/ethnicity, socioeconomic status, gender, nativity, and sexual minority status. Current policy debates and recent policy developments related to health equity are also briefly discussed.

0101	Kellee White	Seats (Total: 25)
	Th 4:00pm - 6:45pm	ONLINE

HLSA688 **Independent Study**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral students who desire to pursue special research problems under the direction of a faculty memeber of the department may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

HLSA702 **Policy and Politics of Health**

Credits: 3 Grading Method: Regular, Audit

Organizational and financial components of the U.S. health care system, including social and political forces that bind the system. Advanced political analysis of the health care system, including key issues and problems.

Although this is an online course, we will have one required in-person visit to Annapolis, Maryland to visit the state legislature organized by the instructor. In addition, there are three online synchronous Q&A sessions that students should participate in remotely and will be arranged by the instructor.

0101	Lori Simon-Rusinowitz	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HLSA711 **Health Economics and Analysis**

Credits: 3 Grading Method: Regular, Audit

Provides an analysis of health and health care services as economic goods. Using microeconomic theories, we will examine the behavior of health care providers, consumers, markets, and firms.

0101	Jie Chen	Seats (Total: 20)
	Tu 4:00pm - 6:45pm	SPH 0305

HLSA720 **Health Law and Ethics**

Credits: 3 Grading Method: Regular, Audit

The legal system helps determine the relationships prevailing among individuals, institutions and governments by setting out the rights, duties and powers of the various parties. This course will look at some of the more important concepts the law uses within the context of health services and public health.

0101	Kerri McGowan Lowrey	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HLSA725 **Econometrics in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SPHL602; or students who have taken courses with comparable content may contact the department. Additional information: priority enrollment will be given to students at the School of Public Health.

Empirical course to introduce students to econometric methods and their applications in public health.

0101	Luisa Franzini	Seats (Total: 20)
	Th 4:00pm - 6:45pm	SPH 3302

HLSA742 **Quantitative Methods in Healthcare Administration**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Master of Health Administration program.

The goal of this course is to give students the background needed to interpret and critique statistical methods and results encountered in the healthcare administrative field. In addition, this course will help students develop skills to conduct basic statistical analyses, become familiar with advanced functions in Excel, and acquire the ability to recognize, communicate, and answer health services related research questions.

PLP1	Rick Sperling	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online.	

HLSA745 **Public Health Practice and Management**

Credits: 3 Grading Method: Regular, Audit

Examines the relationship of practice and management in performing essential public health services on local, state and national levels.

PLH1	Pallavi Tyagi	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Public Health Practice and Policy, Online.	

HLSA750 **Healthcare Management Information Systems**

Credits: 3 Grading Method: Regular, Audit

Provides a background and overview of the analysis, design, evaluation, selection, installation, use, and mangement of information systems in health care settings. Students will review the information management function and value of information and the role of information technology in the provision of high quality care and management decision making. Details on computer hardware, software, networking, and telecommunications sufficient for understanding of concepts relevant to health care managers and staff will be addressed.

0501	Melvin Seale	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
PLP1	Melvin Seale	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Must be in Health Administration, Online.	

HLSA765 **Dissertation Proposal Development Seminar**

Credits: 3 Grading Method: Regular

Recommended: Completed all coursework related to one's dissertation topic; and identified in collaboration with one's dissertation advisor a topic area and potential data set. Restriction: Must be in Health Services Ph.D. (Doctoral) program; or permission of instructor. And must have passed departmental qualifying exam.

Designed to support doctoral students prepare their dissertation proposal and oral presentation. The course is structured around a literature synthesis and development of a modified AHRQ R36 grant application which includes developing a research question and hypotheses, a conceptual model, specific aims, background and significance, and research strategy. The importance of communicating complex ideas through oral and written forms will be emphasized.

0101	Jie Chen	Seats (Total: 15)
	Th 4:00pm - 6:45pm	SPH 0301

HLSA770 **Continuous Quality Improvement in Healthcare**

Credits: 3 Grading Method: Regular, Audit

Designed for the health care professional or administrator involved in quality assurance in health care. Course includes historical beginnings, state-of-the-art, voluntary, governmental efforts, and tools to promote quality assurance.

0101	Suma Nair Tu 7:00pm - 9:45pm	Seats (Total: 20) SPH 0305
PLP1	Lauren Edelstein Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 35) ONLINE

HLSA772 **Healthcare Leadership and Communications**

Credits: 3 Grading Method: Regular, Audit

Health care administrators rely on transformational leadership skills and insights to help their organizations rise to the social financial, public health, and technological challenges of the future. Students will assess and develop their leadership strengths, apply key leadership communication principles, and critically analyze relevent leadership models, exploring their utility in addressing key leadership issues in health care organizations. An underlying theme will be the identification of core values involved in health care delivery, integration of those values in personal and organizational missions, and effective communication to stakeholders.

PLH1	Tracey Manning Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 25) ONLINE
PLP1	Sherry Maykrantz Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 25) ONLINE

HLSA775 **Health Services and Policy Research Methods**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in SPHL-School of Public Health; or permission of instructor.

Survey of health services and policy research methods, including conceptualization, measurement, survey sampling, literature review, different research designs, causal inference, data analysis, and interpretation of basic statistics. This is an introductory course in research methods designed for master's students in the School of Public Health.

0101	Dahai Yue W 4:00pm - 6:45pm	Seats (Total: 20) SPH 0303

HLSA778 **Internship in Public Health**

Credits: 1-4 Grading Method: Regular, Audit

Practical experience providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the experience will depend upon the student's background and career goals.

Internship and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the internship will depend upon the student's background and career goals.

Contact department for information to register for this course.

HLSA780 **Qualitative Methods for Health Services Research**

Credits: 3 Grading Method: Regular, Audit

Qualitative research is a multi-methods approach to the study of social interactions in natural settings. Through triangulation of methods, the researcher attempts to make sense of, or interpret, phenomema in terms of the meanings people bring to them.

0101	Lori Simon-Rusinowitz	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

HLSA786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Health Services Administration department.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLSA790 **Advanced Methods in Health Services Research**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SPHL602; or permission of instructor.

Provides an in-depth examination of health services research literature with emphasis on methodological scrutiny and application of methods beyond linear regression such as categorical regression, survival analysis, selection issues, and endogeniety.

0101	Kellee White	Seats (Total: 25)
	W 4:00pm - 6:45pm	ONLINE

HLSA799 **Master's Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSA898 **Pre-Candidacy Research**

(Perm req) Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HLSA899 **Doctoral Dissertation Research**

(Perm req) Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLSC Integrated Life Sciences Fall 2022

HLSC100 **Students in the University: Integrated Life Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Honors College Integrated Life Sciences program. Credit only granted for: EDCP108O, HLSC100, HONR100, or UNIV100H.

In a small classroom setting, Integrated Life Sciences students learn about academic resources on and off campus.

0101	Sabrina Kramer, Zabrina Anzyl Tu 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100
0102	Sabrina Kramer, Zabrina Anzyl W 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100
0103	Sabrina Kramer, Zabrina Anzyl Th 2:00pm - 3:15pm	Seats (Total: 25) LPA 0100

HLSC208 **Integrative and Quantitative Concepts in Biology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course is designed for entering students enrolled in the Honors College Integrated Life Sciences (ILS) program and uses an active learning approach to emphasize inquiry, critical thinking, quantitative reasoning, and hands-on data analysis. This course will cover a variety of bioinformatic related topics, including genome assembly and scaffolding, sequence alignment algorithms, epigenetics, a bioinformatic examination of the central dogma in molecular biology, gene finding, proteomic analysis, the evolution of molecules, cells and organisms, molecular switches, and biological networks.

Prerequisite: BSCI170. Restriction: Restricted to students in the ILS Honors Program only. This course is designed for entering students enrolled in the Honors College Integrated Life Sciences (ILS) program and uses an active learning approach to emphasize inquiry, critical thinking, quantitative reasoning, and hands-on data analysis. This course will cover a variety of bioinformatic related topics, including genome assembly and scaffolding, sequence alignment algorithms, epigenetics, a bioinformatic examination of the central dogma in molecular biology, gene finding, proteomic analysis, the evolution of molecules, cells and organisms, molecular switches, and biological networks.

0101	Najib El-Sayed MW 9:00am - 9:50am F 8:00am - 9:50am	Seats (Total: 19) ESJ 1215 PLS 1121	 Lab
0102	Najib El-Sayed MW 9:00am - 9:50am F 1:00pm - 2:50pm	Seats (Total: 19) ESJ 1215 PLS 1121	 Lab
0103	Najib El-Sayed MW 9:00am - 9:50am F 3:00pm - 4:50pm	Seats (Total: 19) ESJ 1215 PLS 1121	 Lab
0104	Najib El-Sayed MW 9:00am - 9:50am F 8:00am - 9:50am	Seats (Total: 19) ESJ 1215 ONLINE	 Lab

HLSC329 **Teaching Practicum in the Life Sciences**

(Perm req)

Credits: 1 Grading Method: Regular

A guide and support for the undergraduate teaching assistants (UTAs) in the Integrated Life Sciences (ILS) honors living-learning program. UTAs will develop a greater understanding of teaching and learning in the life sciences, with a focus on the academic values of ILS, by exploring education research and theory, discussing learning strategies and techniques, and reflecting on their practice. Students take this course while serving as a undergraduate teaching assistant in the Integrated Life Sciences courses.

0101	Sabrina Kramer TBA	Seats (Total: 12) LPA 1125

HLSC374 **Mathematical Modeling in Biology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH131, MATH136, or MATH141. Cross-listed with: BSCI374. Credit only granted for: BSCI374, BSCI474, or HLSC374. Formerly: BSCI474. Additional information: The HLSC374 version of this course is restricted to students in the Honors College Integrated Life Sciences program.

Students will learn empowering mathematical techniques through the understanding of biological models. Models are chosen from a variety of biological disciplines. Mathematical skills that will be developed along the way include: solving non-linear difference equations, eigenvector analysis, and the implementation of these algorithms as computer models.

Students must pay a $40.00 laboratory materials fee.

0101	Jonathan Simon	Seats (Total: 5)	
	TuTh 9:30am - 10:45am	CCC 1111	
	M 1:00pm - 3:50pm	CCC 1111	Lab

HLTH Health Fall 2022

HLTH124 **Introduction to Behavioral and Community Health**

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Required of first semester Community Health majors to expose them to introductory-level concepts within the field of behavioral and community health as well as the Community Health degree program. Includes discussion on the delivery of behavioral and community health at the local, state, national, and global levels; career opportunities in the diverse sectors of the community health field; undergraduate programmatic information; and strategies for student success.

0101	M Reynolds	Seats (Total: 40)	
	M 1:00pm - 1:50pm	ATL 1113	
	Class time/details on ELMs	ONLINE	

HLTH140 **Personal and Community Health**

Credits: 3 Grading Method: Regular, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

Cross-listed with HLTH140H. Credit granted for HLTH140 or HLTH140H.

0101	James Butler	Seats (Total: 150)	
	MW 2:00pm - 3:15pm	BPS 1250	

HLTH140H **Personal and Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

Cross-listed with HLTH140. Credit granted for HLTH140 or HLTH140H.

0101	James Butler MW 2:00pm - 3:15pm	Seats (Total: 150) BPS 1250

HLTH200 **Introduction to Research in Community Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

An overview of specific components and steps involved in the community health research process. Content includes, foundations of research, sampling, measurement design, and analysis in a community context.

0101	Dina Borzekowski MWF 2:00pm - 2:50pm	Seats (Total: 40) SPH 0308

HLTH230 **Introduction to Health Behavior**

Credits: 3 Grading Method: Regular, Audit CORE: SB General Education: DSHS

Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

Restricted to Majors or non-majors with less than or equal to 45 credits.

0101	Zahra Saboori Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 70) ONLINE SPH 1303

HLTH234 **Global Health Messages: Understanding Exposure & Impact**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVCC, SCIS

Restriction: Must not be in the Community Health program.

Using a global perspective, this course teaches students to be critical consumers of current and historical health communication interventions. It also provides students with the skills to develop media interventions that target specific and general populations. Students will discover the array of diverse media messages that influence the health and well-being of individuals and communities.

0101	Dina Borzekowski Tu 3:30pm - 6:15pm	Seats (Total: 42) SPH 0302

HLTH234H **Global Health Messages: Understanding Exposure & Impact**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVCC, SCIS

Restriction: Must not be in the Community Health program.

Using a global perspective, this course teaches students to be critical consumers of current and historical health communication interventions. It also provides students with the skills to develop media interventions that target specific and general populations. Students will discover the array of diverse media messages that influence the health and well-being of individuals and communities.

0101	Dina Borzekowski Tu 3:30pm - 6:15pm	Seats (Total: 8) PHY 1204

HLTH264 **Tweets & Likes: Digital Health & Social Media**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS, SCIS

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

Restricted to non-community health majors.

0101	Amara Channell Doig TuTh 11:00am - 12:15pm	Seats (Total: 40) SPH 0302

HLTH264H **Tweets & Likes: Digital Health & Social Media**

(Perm req)

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS, SCIS

Restriction: Must not be in the Community Health program.

Examines the current and potential use of digital health and social media to influence public health. Provides an overview of knowledge, skills and terminology necessary to optimize the effectiveness of these technologies to contribute to the enhancement of individual and community health.

0101	Amara Channell Doig TuTh 11:00am - 12:15pm	Seats (Total: 5) SPH 0302

HLTH285 **Controlling Stress and Tension**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds TuTh 8:00am - 9:15am	Seats (Total: 60) SPH 1312

HLTH285H **Controlling Stress and Tension**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE | General Education: DSHS

Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

0101	M Reynolds TuTh 8:00am - 9:15am	Seats (Total: 5) SPH 1312

HLTH289 **Topical Investigations**

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH292 **Community Health Engagement**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Restriction: Must not be in Community Health program.

An exploration and application of basic community health concepts. An integral part of the course is service learning, that includes evaluating, planning and implementing a community health program with a local community partner.

0101	Calandra Whitted TuTh 2:00pm - 3:15pm	Seats (Total: 40) CHM 2201

HLTH302 **Methods of Community Health Assessment**

Credits: 3 | Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau	Seats (Total: 35)
	TuTh 9:30am - 10:45am	SPH 1302

HLTH302H **Methods of Community Health Assessment**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in HLTH200 and EPIB301. Restriction: Must be in a major within the SPHL-Community Health Department.

Examination of research and evaluation tools that can be applied to community health promotion. Includes the application of qualitative research methods, community needs and strengths assessments, asset mapping, and monitoring and evaluating process, outcome and impact evaluation.

0101	Kirsten Stoebenau	Seats (Total: 5)
	TuTh 9:30am - 10:45am	SPH 1302

HLTH306 **Macro Level Influences on Community Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori	Seats (Total: 35)
	Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	ONLINE SPH 0302

HLTH306H **Macro Level Influences on Community Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in HLTH124. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

An examination of the effects and influences of policy decisions at the local, state and national levels on community health delivery. Historical and contemporary policy issues will be included with a focus on how the policies have impacted community organizations and the overall health of communities.

0101	Zahra Saboori Tu 12:30pm - 1:45pm Th 12:30pm - 1:45pm	Seats (Total: 5) ONLINE SPH 0302

HLTH364 **Social Media & Digital Tools for Community & Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 1302
0201	Devlon Jackson TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 0308

HLTH364H **Social Media & Digital Tools for Community & Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Completion of HLTH230 with a C- or higher. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department; Restricted to majors who entered the program in Fall 2018 or later.

Examination of the characteristics and uses of media platforms and digital technologies to expand the capability to identify and reduce community and public health risks at all levels of prevention. Also considered will be the potential threats these new media can play on individual choice, privacy, confidentiality, and social influence -- which themselves can pose health threats to community and public health.

0101	Sandra Saperstein TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 1302
0201	Devlon Jackson TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 0308

HLTH366 **Behavioral and Community Issues in Public Health**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HLTH130, HLTH230, PSYC100, SOCY100, SOCY105, or ANTH260. Restriction: Must be in Public Health Science program; or permission of SPHL-Behavioral & Community Health department. And must have earned a minimum of 45 credits. Additional information: This course will initially be restricted to Public Health Science (PHSC) majors, but could ultimately be opened to other majors, particularly those in HLTH.

The exploration of how social and behavioral science theories and public health concepts and methods can be applied to both the health-illness experience and community interventions.

0101	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 9:30am - 10:20am	Seats (Total: 27) ESJ 2208 ATL 1434	Discussion
	Restricted to Public Health Science students at College Park.		
0102	Evelyn King-Marshall MW 2:00pm - 2:50pm Tu 12:30pm - 1:20pm	Seats (Total: 27) ESJ 2208 BPS 0283	Discussion
	Restricted to Public Health Science students at College Park.		
0103	Evelyn King-Marshall MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0104	Evelyn King-Marshall MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 27) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0105	Evelyn King-Marshall MW 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 24) ESJ 2208 SPH 0121	Discussion
	Restricted to Public Health Science students at College Park.		
0106	Evelyn King-Marshall MW 2:00pm - 2:50pm Th 9:30am - 10:20am	Seats (Total: 24) ESJ 2208 ATL 1434	Discussion
	Restricted to Public Health Science students at College Park.		

HLTH377 Human Sexuality

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

Cross-listed with HLTH377H. Credit granted for HLTH377 or HLTH377H.

0101	Jenna Messman	Seats (Total: 200)
	Class time/details on ELMs	ONLINE

HLTH377H **Human Sexuality**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

Cross-listed with HLTH377. Credit granted for HLTH377 or HLTH377H.

0101	Jenna Messman	Seats (Total: 200)
	Class time/details on ELMs	ONLINE

HLTH386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Prerequisite: Permission of SPHL-Behavioral & Community Health department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

HLTH389 **Topical Investigations**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

Contact department for information to register for this course.

HLTH391 **Making a Difference: Applying Community Health**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSSP

Prerequisite: SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, EPIB301, EPIB315, BSCI170, BSCI201, and HLTH302. Students must have completed or be concurrently enrolled in HLTH364. Corequisite: HLTH420 and HLTH490. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The exploration and application of community health concepts including theoretical models, advocacy, cultural competency, asset mapping, and needs assessment. Includes planning, implementing and evaluating a community health program with a designated community partner.

0101	James Butler	Seats (Total: 45)
	MW 11:00am - 12:15pm	SPH 0308

HLTH399 **Community Health Field Work**

(Perm req)

Credits: 1-6 Grading Method: Regular

Students will gain practical experience under conditions conducive to educational and professional development. The internship is a supervised period of community/public health activities, carried out in a relevant professional organization, that emphasizes the application of theory and previous coursework.

Contact department for information to register for this course.

HLTH410 **Honors Seminar**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: HLTH200; and must have completed 2 other courses in HLTH. Restriction: Minimum cumulative GPA of 3.5; and must have completed 45 credits before applying.

Undergraduate majors with a strong academic record are provided the opportunity to engage in challenging educational experiences related to the social and behavioral aspects of public health. Students will learn the skills and knowledge to develop, propose, defend, and complete an honors thesis or honors project.

0101	Kerry Green	Seats (Total: 12)
	M 12:30pm - 2:50pm Class time/details on ELMs	SPH 0301 ONLINE

HLTH420 **Effective Strategies for Public Health Practice**

(Perm req)

Credits: 3 Grading Method: Regular, Audit General Education: FSOC

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201. Students must have successfully completed or concurrently complete HLTH364. Corequisite: HLTH490 and HLTH391. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of successful public health presentation strategies. Special problems associated with public health presentations are discussed, and students become familiar with a variety of resources as well as with planning for and implementing demonstration presentations.

0101	M Reynolds TuTh 9:30am - 10:45am	Seats (Total: 23) SPH 0303	
0201	M Reynolds TuTh 11:00am - 12:15pm	Seats (Total: 23) SPH 0303	

HLTH424 **Lesbian, Gay, Bisexual & Transgender Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: Students should have some familiarity with basic psychology, sociology and/or epidemiology. Restriction: This course is restricted to students who have completed a minimum of 60 credits. Jointly offered with HLTH624. Credit only granted for: HLTH424 or HLTH6 24.

The preparation of students to be knowledgeable advocates for the health of lesbian, gay, bisexual, and transgender (LGBT) populations. Course focus is defined by the Healthy People 2020 federal health objectives for LGBT populations: data collection for research, culturally competent healthcare, bullying in schools, suicide, homelessness, and sexually transmitted diseases including HIV.

ESG1	Bradley Boekeloo Class time/details on ELMs Th 4:00pm - 5:00pm	Seats (Total: 35) ONLINE ONLINE	 Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

HLTH431 **Health Literacy in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm	Seats (Total: 10) SPH 0302
	Restricted to students in the Behavioral and Community Health major.	

0201	Catherine Maybury TuTh 2:00pm - 3:15pm	Seats (Total: 25) SPH 0302
	Restricted to College Park students in the Public Health Science major.	
ESG1	Catherine Maybury W 5:00pm - 7:30pm	Seats (Total: 30) ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	
ESG2	Catherine Maybury W 5:00pm - 7:30pm	Seats (Total: 5) ONLINE
	Registration is restricted to Biological Sciences - Shady Grove majors.	

HLTH431H **Health Literacy in Action**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HLTH 371; or equivalent. Repeatable to 0 credit. Credit only granted for: HLTH431 or HLTH498L. Formerly: HLTH498L.

This course introduces the concept of health literacy and develops the knowledge and skills to understand the field and engage productively about health literacy with healthcare providers, systems, and policy makers. The class explores diverse perspectives about health information and communication, and different pathways and strategies to help create the conditions for more informed and engaged individuals and communities.

0101	Catherine Maybury TuTh 2:00pm - 3:15pm	Seats (Total: 5) SPH 0302

HLTH434 **Introduction to Public Health Informatics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

0101	Sandra Saperstein W 4:00pm - 6:45pm	Seats (Total: 11) ITV 1111
	Restriction: Must be a major in Behavioral and Community Health department.	

0201	Sandra Saperstein W 4:00pm - 6:45pm	Seats (Total: 29) ITV 1111
	Restriction: Must be a Public Health Science major.	

HLTH434H **Introduction to Public Health Informatics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Community Health; Public Health Science) ; and must have earned a minimum of 60 credits. Credit only granted for: HLTH434 or HLTH498E. Formerly: HLTH498E.

Provides an overview of the field of public health informatics and the influence of technology on the public's health and well-being. Emphasizes the application of various technologies and computer/internet applications to support public health research and practice, including strategies to address new and emerging threats.

0101	Sandra Saperstein W 4:00pm - 6:45pm	Seats (Total: 5) ITV 1111

HLTH460 **Multicultural Population Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: HLTH140, HLTH230, or HLTH366; or permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

Cross-listed with HLTH460H. Credit granted for HLTH460 or HLTH460H.

0101	Craig Fryer Class time/details on ELMs Th 3:30pm - 4:45pm	Seats (Total: 15) ONLINE SPH 1301
	Restriction: Must be a major in Behavioral and Community Health departm ent. Please note the first Tuesday class meeting will be held in-person.	
0201	Craig Fryer Class time/details on ELMs Th 3:30pm - 4:45pm	Seats (Total: 30) ONLINE SPH 1301
	Restriction: Must be a Public Health Science major. Please note the first Tuesday class meeting will be held in-person.	

HLTH460H **Multicultural Population Health**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: HLTH140, HLTH230, or HLTH366; or permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within the SPHL-Behavioral & Community Health department.

Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

Cross-listed with HLTH460. Credit granted for HLTH460 or HLTH460H.

0101	Craig Fryer Class time/details on ELMs Th 3:30pm - 4:45pm	Seats (Total: 3) ONLINE SPH 1301
	Please note the first Tuesday class meeting will be held in-person.	

HLTH489 **Field Laboratory Projects and Workshop**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

Contact department for information to register for this course.

HLTH490 **Professional Preparation in Community Health**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201. Students must have successfully completed or concurrently complete HLTH364. Corequisite: Students must also enroll in HLTH420 and HLTH391. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Tracy Zeeger TuTh 9:30am - 10:45am	Seats (Total: 23) HBK 1108
0201	Tracy Zeeger TuTh 11:00am - 12:15pm	Seats (Total: 23) HBK 1108

HLTH490H **Professional Preparation in Community Health**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in EPIB301, EPIB315, SPHL100, HLTH124, HLTH140, HLTH200, HLTH230, HLTH302, BSCI170, BSCI171, and BSCI201. Students must have successfully completed or concurrently complete HLTH364. Corequisite: Students must also enroll in HLTH420 and HLTH391. Restriction: Must be in a major within the SPHL-Behavioral and Community Health department.

The development of skills necessary for joining the public health work force post-graduation, as well as assistance in obtaining an appropriate internship that will serve as a final semester, capstone experience. Students will be exposed to various relevant professional experiences, and will be afforded the opportunity to strengthen their own individual skills by selecting from a menu of skills-based learning modules that best suit their perceived needs.

0101	Tracy Zeeger TuTh 9:30am - 10:45am	Seats (Total: 3) HBK 1108
0201	Tracy Zeeger TuTh 11:00am - 12:15pm	Seats (Total: 3) HBK 1108

HLTH491 **Community Health Internship**

(Perm req)

Credits: 12 Grading Method: Regular

Prerequisite: Minimum grade of C- in HLTH420 and HLTH490. Restriction: Must have completed all program requirements and be in the last semester of the Community Health degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 40)

HLTH492 **BS/MPH Community Health Internship**

Credits: 9 Grading Method: Regular

Prerequisite: Minimum grade of C- in HLTH490. Restriction: Must be a Community Health major who has been admitted to the combined BS/MPH degree program.

Integrating theory with practice in a community health setting.

0101	Tracy Kennedy Contact instructor or department for details.	Seats (Total: 10)

HLTH652 **Quantitative Research Methods I in Public health**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in MPH: Community Health Education (Master's) program; or must be in Ph.D.: Public and Community Health (Doctoral) program. Credit only granted for: HLTH652 or HLTH688R. Formerly: HLTH688R.

Intermediate statistics and procedures in public health-related research for doctoral students. Focuses on applied statistics rather than theoretical, with emphasis on 1) how to apply statistical models, 2) how to perform the analysis with avialable software, and 3) how to interpret findings.

0101	Min Wang W 4:00pm - 6:45pm	Seats (Total: 15) SPH 0301

HLTH672 **Public Health Informatics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Instructor permission is required for students not enrolled in a degree seeking program in the School of Public Health. Cross-listed with: EPIB672. Credit only granted for: HLTH670 or HLTH672 or EPIB672. Formerly: HLTH670.

A basic overview of Informatics and its application in a public health setting. The major goal is for students to understand the basic tools and building blocks needed to utilize this technology in order to improve their professional productivity

0101	Sandra Saperstein Tu 7:00pm - 9:45pm	Seats (Total: 25) SPH 0303
PLB1	Jennifer Robinson Class time/details on ELMs *Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 25) ONLINE

HLTH674 **Health Literacy**

Credits: 3 Grading Method: Regular, Audit

Recommended: Health communication, communication, journalism, literacy, or cognitive or information sciences classes. Credit only granted for: HLTH688L or HLTH674. Formerly: HLTH688L.

Introduction to health literacy research, practice, and skills. The course will develop students' understanding of how health literacy is both a barrier and an asset for health. We will also examine how health literacy affects a wide range of outcomes. Students will learn the basics of health literacy concepts, models, and research methods, and discuss health literacy research and evaluation in clinical, public health, and community settings. Students will study key health topics, populations, and contexts for health literacy research and practice. The course will describe professional skills necessary for effective public health communication practice and provide opportunities to practice the skills. The implications of research for public health practice, policy, and consumer/patient interventions and behavior will be integrated so that public health practitioners and researchers are prepared to address health literacy in their future work.

0101	Cynthia Baur W 4:00pm - 6:45pm	Seats (Total: 25) SPH 2387F

HLTH688 **Special Problems in Health Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

HLTH701 **Mixed Methods in Behavioral and Community Health Research**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: HLTH625 and HLTH710, or equivalent non-BCH qualitative and quantitative methods courses.

A discussion of major paradigms in mixed method inquiry, an overview of the process of mixed methods research, and an introduction to several mixed methods approaches, including convergent, explanatory sequential, and exploratory sequential designs.

0101	Elizabeth Aparicio M 1:00pm - 3:45pm	Seats (Total: 15) SPH 0116A

HLTH710 **Methods and Techniques of Research**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

0101	Elaine Doherty Tu 4:00pm - 6:45pm	Seats (Total: 25) SPH 0303
PLB1	Azieb Kidanu Class time/details on ELMs	Seats (Total: 10) ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH712 **Applied Research Methods in Behavioral and Community Health**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: HLTH710.

Designed to build on the research skills obtained in HLTH710 and other fundamental research methods and statistics courses. Methods and problems that are commonly encountered in health education research will be discussed including examination of actual research studies. Complex behavioral research issues will be addressed with existing research data sets. With these data sets, students will develop an analytic plan and conduct data analysis.

0101	Bradley Boekeloo	Seats (Total: 10)
	M 4:00pm - 6:45pm	SPH 0301

HLTH778 **Internship in Public Health**

Credits: 1-4

Grading Method: Regular

Practical Experience seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practical experience will depend upon the student's background and career goals.

0101	Evelyn King-Marshall	Seats (Total: 10)
	Contact instructor or department for details.	
PLB1	Evelyn King-Marshall	Seats (Total: 10)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH780 **Community Health**

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be in the Behavioral and Community Health doctoral program (BCHL) or the Master of Public Health Behavioral and Community Health concentration in-person or online program (MBCH or MBCO); and permission of Behavioral and Community Health department. Credit only granted for: HLTH740 or HLTH780.

Overview of public health organizations, programs, and policies, including their structure and function, and their ability to change with changing community health needs.

0101	Zahra Saboori	Seats (Total: 25)
	Th 4:00pm - 6:45pm	SPH 0305

PLB1	Zahra Saboori	Seats (Total: 15)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH784 **Guided Capstone Preparation Seminar**

Credits: 1 Grading Method: Sat-Fail

Prerequisite: Must have attended a capstone project orientation session.

The purpose of this seminar is to guide students through the major steps and deadlines associated with developing their capstone project, which is the MPH degree culminating experience. The capstone project requires that students apply the knowledge and skills acquired during their MPH program to meet the needs of a stakeholder group or person. Some examples of needs (deliverables) include: an infographic, a website, a curriculum, a lesson plan, an app, an evaluation plan, a policy brief, etc. Some examples of stakeholders: include legislators, non-profit organizations, a faculty researcher, a government (county, state or federal) agency, etc. The project is very applied in nature and the result is a deliverable that can be used immediately by the stakeholder.

0101	Sacha St-Onge Ahmad	Seats (Total: 10)
	Contact instructor or department for details.	
PLB1	Sacha St-Onge Ahmad	Seats (Total: 17)
	Class time/details on ELMs	ONLINE
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.	

HLTH786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed all required coursework; and permission of SPHL-Behavioral & Community Health department. Restriction: Must be in a major within SPHL-Behavioral & Community Health department.

Capstone experience providing opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

Contact department for information to register for this course.

HLTH799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HLTH898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

HLTH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

HNUH University Honors Fall 2022

HNUH100 **Gateway Seminar**

Credits: 1 Grading Method: Regular

First-semester orientation and exploration seminar required of all UH students.

Restricted to first-semester UH students.

0101	Christine Jones, Samuel Holley-Kline Tu 9:30am - 10:45am	Seats (Total: 20) YDH 0104A
0102	Christine Jones, Samuel Holley-Kline Tu 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104A
0103	Christine Jones, Samuel Holley-Kline Th 9:30am - 10:45am	Seats (Total: 20) YDH 0104A
0104	Christine Jones, Samuel Holley-Kline Th 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104A
0105	Christine Jones, Samuel Holley-Kline F 9:00am - 10:15am	Seats (Total: 20) YDH 0104A
0106	Christine Jones, Samuel Holley-Kline F 12:00pm - 1:15pm	Seats (Total: 20) YDH 0104A
0201	Christine Jones, Yupeng Jiao Tu 9:30am - 10:45am	Seats (Total: 20) YDH 0104F
0202	Christine Jones, Yupeng Jiao Tu 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104F
0203	Christine Jones, Yupeng Jiao Th 9:30am - 10:45am	Seats (Total: 20) YDH 0104F
0204	Christine Jones, Yupeng Jiao Th 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104F

0205	Christine Jones, Yupeng Jiao F 9:00am - 10:15am	Seats (Total: 20) YDH 0104F
0206	Christine Jones, Yupeng Jiao F 12:00pm - 1:15pm	Seats (Total: 20) YDH 0104F
0301	Christine Jones, Katherine Lieder Tu 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A
0302	Christine Jones, Katherine Lieder Tu 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104A
0303	Christine Jones, Katherine Lieder Th 11:00am - 12:15pm	Seats (Total: 20) YDH 0104A
0304	Christine Jones, Katherine Lieder Th 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104A
0305	Christine Jones, Katherine Lieder F 10:30am - 11:45am	Seats (Total: 20) YDH 0104A
0306	Christine Jones, Katherine Lieder F 1:30pm - 2:45pm	Seats (Total: 20) YDH 0104A
0401	Christine Jones, Riva Riley Tu 11:00am - 12:15pm	Seats (Total: 20) YDH 0104F
0402	Christine Jones, Riva Riley Tu 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104F
0403	Christine Jones, Riva Riley Th 11:00am - 12:15pm	Seats (Total: 20) YDH 0104F
0404	Christine Jones, Riva Riley Th 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104F
0405	Christine Jones, Riva Riley F 10:30am - 11:45am	Seats (Total: 20) YDH 0104F
0406	Christine Jones, Riva Riley F 1:30pm - 2:45pm	Seats (Total: 20) YDH 0104F

0501	Christine Jones, Natalie Kress Class time/details on ELMs	Seats (Total: 10) ONLINE	
0601	Christine Jones, Riva Riley W 10:30am - 11:45am	Seats (Total: 20) YDH 0104A	

HNUH218B Frederick Douglass's America

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

What does it mean to be free in the United States? The concept of freedom was embedded in the nation's political culture in the Declaration of Independence, and it has remained a cherished and contested ideal. We can interrogate this concept through the life and times of Frederick Douglass (1818-1895), who dreamed eloquently of freedom, thought carefully about its limits, and worked ardently to build a firmer freedom for a broader population. With Douglass as our guide, we will examine the survival of slavery in a nation built on freedom, images of the expanding United States as a land of opportunity, and the complex meanings and tremendous costs of freedom struggles during the nineteenth century. This history will push you to think critically about the contested concepts that shape our lives, and to consider the values and the perils of a society that positions freedom as its highest ideal.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH218B is the required course in the Freedom at Stake thematic cluster. Freedom at Stake courses will be offered through Spring 2024.

0101	Christopher Bonner TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 20) BPS 1243 ASY 3221	Discussion
0102	Christopher Bonner TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 20) BPS 1243 TWS 1320	Discussion
0103	Christopher Bonner TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) BPS 1243 KNI 1206	Discussion

HNUH218U Finding Feminist Freedom

Credits: 3 Grading Method: Regular General Education: DSHU

"I'm the one that'll make you pay." So goes one verse of what has become a Latin American feminist hymn, "Cancion sin miedo" ("Fearless Song," by Vivir Quintana). Transnationally, feminists today--particularly in the Global South--are on fire: militant, unafraid, angry, and, above all, driven by a desire to build a world where the promise of freedom for all is finally fulfilled. But what is freedom? Is freedom an abstract concept or a lived experience? Is it individual or collective? What is the meaning of 'feminist freedom'? These questions will be gauged by discussing, analyzing, and interpreting texts in feminist theory; decolonial and transnational feminist approaches; and feminist film, documentary, performance, and protest. At the end of the course, you will have learned that there is not one feminism, but many, become familiar with feminist theory and practice, and be equipped to live your own version of a feminist life.

Restricted to University Honors students matriculating in Fall 2020 and later. This course is part of the Freedom at Stake thematic cluster. Freedom at Stake courses will be offered through Spring 2024.

0101	Veronica Zebadua-Yanez MW 4:00pm - 5:15pm	Seats (Total: 20) YDH 0104A
0201	Veronica Zebadua-Yanez TuTh 12:30pm - 1:45pm	Seats (Total: 20) YDH 0104A

HNUH218V **Black Bodies and Green Spaces: From 1619 to Today**

Credits: 3 Grading Method: Regular

From the antebellum plantation slave, who used uncultivated land as a place of deliverance, healing and route to freedom, to the Central Park bird watcher, whose green space presence was perceived as a threat to White physical safety, black bodies have a vexed relationship to green space. This course critically examines how systemic racism has shaped the experience, connection, and relationship to nature among Black Americans. Students will conduct in-depth analysis, critical thinking, and discussion on topics ranging from slavery and nature; The Great Migration; and Jim Crow, segregation, and parks; to green space inequity and "Moving While Black" (Treyvon to Ahmaud). While some environments (built, natural, virtual) within the United States have represented the essence of anti-Black racism and indignity, this course will further explore how many Black Americans still regarded nature as a space of freedom, humanity, and spirituality.

Restricted to UH students matriculating in Fall 2020 or later. HNUH218V is part of the Freedom At Stake thematic cluster and must be paired with HNUH218B to complete the cluster. Freedom At Stake courses will be offered through Spring 2024.

0101	Jennifer Roberts Th 2:00pm - 4:30pm	Seats (Total: 20) PLS 1146

HNUH228B **Redesigning Life: Prospects and Consequences**

Credits: 3 Grading Method: Regular General Education: DSNS, SCIS

What is at stake for our world as humans seek to redesign biological organisms? Biotechnology advances are enabling us to read, edit and write genomes, including our own. This revolution has been fueled by the quest to understand and cure disease. Yet, these innovations have far-reaching consequences beyond medicine and will reshape our world in ways we can only imagine - or fear. The course will challenge students to confront the risks and rewards for them, their family, their community, and their future, as biotechnology moves out of specialized laboratories and into homes. A demystifying, low-tech approach will introduce them to contemporary genome redesign, clarifying the current limitations and future goals of the field. Students will debate whether redesigning plants and animals will enhance or inhibit momentum in human genome engineering, and formulate their own arguments about who should be able to use these tools and where, who decides, and how much society is willing to risk.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH228B is the required course in the Redesigning Life thematic cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Edward Eisenstein TuTh 12:30pm - 1:45pm	Seats (Total: 60) CCC 1205

HNUH228U **A Life Worth Living: The Legacy of Eugenics in Genetics**

Credits: 3 Grading Method: Regular General Education: DSHU

Should parents be able to choose their child's eye color? Or alter their child's genome to eliminate a hereditary disability? While these might seem like different concerns, both are eugenic questions. In this class students will learn about the legacy of eugenics and its role in the development of genetics by analyzing science fiction works through the lens of disability studies. We'll explore the past to identify who has historically been considered "fit" and look to the future to consider what kinds of embodiments, and life experiences, society seems willing to let disappear.

Restricted to University Honors students matriculating in Fall 2020 and HNUH228U is part of the Redesigning Life cluster. Redesigning Life courses will be offered throgh Spring 2024.

0101	Leigha McReynolds MW 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104F
0201	Leigha McReynolds TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104F

HNUH228V **At What Cost? An Examination of the Societal and Ethical Impact of Modern Biological Research**

Credits: 3 Grading Method: Regular General Education: DSNS

The results of modern biological research are pervasive - from cutting edge medical treatments, to debates about mandatory vaccination, to genetic engineering breakthroughs. This course will examine the social, ethical, and biological costs of research. The focus will be on the larger issues that surround the biology - questions of ethical research, the perception of science versus reality, the intersection of science and society, and even we may need to reconsider the meanings of "self" and "human". Students will reflect on the lessons learned to propose how research can proceed in a way that balances the demands of discovery with social justice and the ethical use of animals and the environment.

Restricted to UH students matriculating in Fall 2020 or later. HNUH228V is part of the Redesigning Life thematic cluster and pairs with HNUH248B to complete the cluster. Redesigning Life courses will be offered through Spring 2024.

0101	Kenneth Frauwirth	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	ARC 1125

HNUH229P **Climate in Crisis: Strategy and Advocacy**

Credits: 3 Grading Method: Regular General Education: DSSP

This theory and practice track examines theoretical frameworks for understanding climate change and concrete cases that shed light on the complexity of managing it. In this, the practical component of the Climate in Crisis track, we explore several domestic energy and climate policy case studies, examining the competing roles played by various interest groups that influence legislative and regulatory outcomes, with a focus on differing organizational advocacy strategies. Once we have mastered organizational advocacy strategies, students bring those tools to bear on the most recent US Federal policy mandates and legislation. In 229T, students will complement this work with a deep dive into the nature of public goods and climate change policy, among other crucial considerations.

Restricted to UH students matriculating in Fall 2020 or later. HNUH 229T pairs with HNUH229P to complete the "Climate in Crisis" Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2023-24 academic year.

0101	Tyson Slocum	Seats (Total: 20)
	W 3:00pm - 5:30pm	KEY 0121

HNUH238B **Systemic Racism in Public Opinion and Policy Attitudes**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

If we believe that racism is bad, why do we still support racist policies? No matter how hard we work to end it, the challenge of racism seems here to stay. Though attitudes toward racial segregation in schools have changed, schools are more racially isolated than ever. There is a disconnect in American public life between support for the idea of equality and resistance to policies aimed at addressing racism, and a deep divide over how to eliminate inequality. This course focuses on public opinion and how these attitudes inform public policy. Can we address systemic inequality through public engagement and by changing the national narrative with the support of evidence? Does change come from shifting views or shifting policies? Students will explore these issues through a case study on racial equity in the Honors College. By developing skills in evidence-based op-ed writing and survey-based experiments, students will add their voices to these pressing public debates of our time.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH238B is the required course in the Systemic Racism cluster. Systemic Racism classes will be offered through Spring 2024.

0101	Janelle Wong TuTh 2:00pm - 3:15pm	Seats (Total: 60) SYM 0200

HNUH238U **Unequal Opportunity? Race and the Future of American Education**

Credits: 3 Grading Method: Regular

America's schools are dynamic microcosms of society at large. They simultaneously reflect, reproduce, and shape what happens outside of the classroom, including the many ways that racism affects us all. The educational mechanisms that operate for the benefit of some and to the detriment of others are often hard to see, often because they are hidden in plain sight. For example, national tests are standardized. When racialized differences in test scores appear, they are called "achievement gaps" and the disparity is attributed to essential differences or cultural deficiency rather than inequitable access and opportunity. In this course students will learn methods to critically examine such commonplace notions as the achievement gap and to document their effects on society. They will also develop strategies for self-reflection that enable them to confront inequity in their own educational experience and work to create change.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238U is part of the Systemic Racism thematic cluster and pairs with HNUH238B to complete the cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Robert Graham MW 1:00pm - 2:15pm	Seats (Total: 20) YDH 104F
0201	Robert Graham MW 4:00pm - 5:15pm	Seats (Total: 20) YDH 104F

HNUH238V **Still Separate and Unequal? The Enduring Role of Segregation in American Life**

Credits: 3 Grading Method: Regular

Racial segregation remains an enduring feature of American life today though many believe segregation is a relic of the past. Using an interdisciplinary approach that incorporates history, sociology, political science, and public policy, this course highlights the complex ways in which legacies of segregation continue to shape life in the US. We will identify how federal, state, and local governments endorsed systemic racism through policies that defined the racial geography and resources of racial groups in the US. Students will engage with policy experts to consider the promise and limits of policies that promote integration within communities and the connection between race, spatial location, and current political divisions.

Restricted to UH students matriculating in Fall 2020 or later. HNUH238V is part of the Systemic Racism thematic cluster and must be paired with HNUH238B to complete the cluster. Systemic Racism courses will be offered through Spring 2024.

0101	Alana Hackshaw	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	SQH 1103

HNUH239P **Geopolitics of Finance: A Simulation of the Roller Coasters of Capitalism**

Credits: 3 Grading Method: Regular General Education: DSSP

Credit only granted for: HONR299F or HNUH239P. Formerly: HONR299F.

Explores the intersection of money, markets, politics, and power; and the periodic financial crises that leave a lasting, sometimes devastating impact on the global landscape. Students will examine the detritus of 200 years of crises in the United States, from 19th-century booms and busts, to early 20th-century crashes. They will take the roller coaster ride of the 2008 financial crisis, reliving events that left the world reshaped. Students will be primed to examine the ripple effects of financial crises and the role they have played in changing the global socio-economic landscape over the last two centuries. This course is self-contained but paired with HNUH239T in the Geopolitics of Finance track, which explores how globalization has brought about fundamental changes to our daily lives by making the world more interdependent.

Restricted to UH students matriculating in Fall 2020 or later. HNUH239P pairs with HNUH239T to complete the "Geopolitics of Finance" Theory/Practice track. This pair of courses can be taken in any order. This track will be offered at least through the 2023-24 academic year.

0101	Behzad Gohari	Seats (Total: 20)
	W 6:00pm - 8:30pm	ESJ 2309

HNUH248B **Setting the Table: The Challenges and Opportunities for Sustainable Agriculture**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

What will the farm of the future look like? Our current food system is plagued with paradoxes. An estimated 41.2 million Americans are classified as food insecure, but we produce 4,000 calories per person per day. Between 2008 and 2012, 1.6 million acres of long-term grasslands were converted to crop production, yet more than 350,000 acres of farmland were lost to development annually. This course will investigate what determines the food we eat and how we can make changes today that will improve both food access and the environment for future generations. Students will learn agribusiness, as well as alternative food movements and regenerative agriculture. They will meet experts from the USDA and Maryland producers. By growing their own vegetables, tracking food consumption, and exploring family history linked to farming, students will leave the course as conscious consumers empowered to navigate food system reform.

Restricted to University Honors students matriculating in Fall 2020 and later. HNUH248B is the required course in the Global Crises, Sustainable Futures cluster. Global Crises, Sustainable Futures classes will be offered through Spring 2024.

0101	Stephanie Yarwood	Seats (Total: 55)
	TuTh 3:30pm - 4:45pm	TWS 1310

HNUH248U **The Loneliness Crisis: Origins and Solutions**

Credits: 3 Grading Method: Regular

In 2017, U.S. Surgeon General Vivek Murthy deemed loneliness an "epidemic." Despite the rise of social media that is meant to foster connection, over 23% of adults report being lonely and social networks have been shrinking for decades. Like a viral epidemic, widespread loneliness has grave consequences. Loneliness shortens lifespans at a rate akin to smoking 15 cigarettes a day and predicts mortality risk better than poor diet or lack of exercise. This course will explore how loneliness became a crisis--exploring potential drivers of loneliness like social media, systemic racism, homophobia, and the rise of romantic love--and what we can do about it. It will end with students developing interventions to diminish loneliness and practicing skills to connect with one another.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248U is part of the Global Crises, Sustainable Futures thematic cluster and pairs with HNUH248B to complete the cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Marisa Franco	Seats (Total: 20)
	MW 9:00am - 10:15am	YDH 0104A
0201	Marisa Franco	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	YDH 0104F

HNUH248V **How Can We Study Environmental Problems?**

Credits: 3 Grading Method: Regular

Credit only granted for: HONR249D or HNUH248V. Formerly: HONR249D.

How do we study environmental problems? The course provides an overview of the ways social scientists collect information about environmental issues and environmental change, most of which are driven by society and the social world. The course focuses on learning how to collect data that are reliable and applicable to research questions. Through the lens of specific case studies of environmental efforts currently underway, students will learn how to construct a testable hypothesis, design a small-scale research project, and write up the findings of this work to understand environmental issues. They will develop a critical eye to the structure of social science research: identifying the object of inquiry, noting what is being tested; how it is operationalized; and evaluating the quality of the research conducted. The course requires no background or prerequisites.

Restricted to UH students matriculating in Fall 2020 or later. HNUH248V is part of the Global Crises, Sustainable Futures thematic cluster and pairs with HNUH248B to complete the cluster. Global Crises, Sustainable Futures courses will be offered through Spring 2024.

0101	Dana Fisher	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	TYD 0101

HNUH249P **National Security: US Foreign Policy**

Credits: 3 Grading Method: Regular

Credit only granted for: HNUH249P or HONR269T. Formerly: HONR269T.

Following the terrorist attacks of September 11, 2001, the U.S. launched a major effort to dismantle the Taliban and create a sustainable democracy in Afghanistan. In 2021, the Taliban took control of the country. Was the U.S. effort doomed to fail? To answer this question, UH students will partner with peers at the American University of Afghanistan through a virtual global classroom to examine the lessons learned from the U.S. and international presence in Afghanistan over the past 20 years. Through reading assignments and virtual meetings with former senior U.S. and Afghan officials, students will examine the reasons behind the downfall of the country and analyze whether the outcome could have been changed. Students are not expected to have any prior knowledge about the conflict in Afghanistan. This course is self-contained but paired with HNUH249T in the National Security track, which explores debates around efforts to protect the nation from terrorism while preserving our values.

Restricted to UH students matriculating in Fall 2020 or later. HNUH249P is part of the National Security Theory/Practice track and must be paired with HNUH249T to complete the track.

0101	Temim Nusraty	Seats (Total: 20)
	TuTh 6:30pm - 9:00pm	ESJ B0320

HNUH258A **Harvesting Big Data to Examine Agriculture and Climate Change**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

Credit only granted for: HNUH258A or AREC280. Formerly: HNUH258A.

Can agricultural production keep up with climate change? Data analytics and data science are driving the force behind the digital revolution, which has changed the way we are able to analyze and interpret the world. The explosion of data offers both opportunities and challenges that require new tools and methods of analysis. This course applies sophisticated digital tools to an age-old concern: the impact of environmental change and extreme weather on agricultural productivity. In this hands-on introduction to data analysis and visualization with real-world data, students acquire the tools to understand the impacts of environmental change and more.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "Information & Power" thematic cluster. Fall 2022 will be the final offering of HNUH258A; however, the other classes in this cluster (HNUH258X and HNUH258Y) will be offered through Spring 2023.

0101	Lars Olson TuTh 2:00pm - 3:15pm	Seats (Total: 50) ESJ 2309

HNUH258X **Carnal Knowledge: Health, Data, and Power from Enlightenment to WebMD**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP

"Carnal knowledge" may sound provocative but, in a literal sense, it describes information derived from and about the human body. Consider a ship captain observing the tattoos of sailors to understand their origins, a surgeon examining a cadaver for signs of saintliness, or a natural philosopher ingesting an herb to determine its toxicity. These are instances of carnal knowledge. Historically, such intimate acts turned the body into a site of data collection and a powerful source of information. Both by choice and by force, the instrumentalization of the human body was used to solve scientific problems as well as to justify hierarchies of race and sex. Through a deep engagement with this material, students will connect topics such as the transatlantic slave trade to cell lines as they uncover the embodied relationship between information and power that still shapes our world today.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "Information & Power" thematic cluster. Information & Power courses will be offered through Spring 2023.

0101	Zachary Dorner MW 1:00pm - 2:15pm	Seats (Total: 20) YDH 0104A
0201	Zachary Dorner MW 10:30am - 11:45am	Seats (Total: 20) YDH 0104F

HNUH268A **Arbitrating our Bodily Rights: What it Means to Consent**

Credits: 3 Grading Method: Regular General Education: DSHU, SCIS

Both American law and conventional morality support the view that human beings have bodily rights - ones we can waive by giving another person our consent to do what would otherwise be a rights violation. Yet, debate about the sovereignty of an individual's body and the potential rights of others--including the state--over our bodies lies at the core of some of the most contentious issues facing us as a society. This class will investigate the thorny debates that pertain to consent in sexual relations, medicine and research, and bodily markets. What types threats, offers, or cognitive incapacities undermine true consent? How do we evaluate the moral or legal significance of bodily rights when they come into tension with the government's interest? After evaluating arguments, exploring distinctions, and using philosophical tools to arrive at reasoned conclusions about consent, students will learn to apply these conceptual tools to cases from fiction and current events.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "Body Politics" thematic cluster. Body Politics courses will be offered through Spring 2023.

0101	Hallie Liberto W 2:00pm - 3:40pm F 11:00am - 11:50am	Seats (Total: 15) KEY 0116 KEY 0117	 Discussion
0102	Hallie Liberto W 2:00pm - 3:40pm F 12:00pm - 12:50pm	Seats (Total: 15) KEY 0116 KEY 0117	 Discussion
0103	Hallie Liberto W 2:00pm - 3:40pm F 1:00pm - 1:50pm	Seats (Total: 15) KEY 0116 KEY 0117	 Discussion

HNUH268Y **The Politics of Disability: Life Narratives & Identity**

Credits: 3 Grading Method: Regular General Education: DSHS

Credit only granted for: HONR218V or HNUH268Y. Formerly: HONR218V.

The politics of disability are fraught and contentious. This course takes up the experience of disability by asking how and why differently-abled bodies are excluded, marginalized, or threatened. Students will examine these questions through the psychosocial and cultural history of disability, as well as through life narratives and real-world exploration. Beginning with the history of disability, students will gain an understanding of how current disability identity and culture has develop in the US. Students will experience and also produce personal life narratives related to bodily politics and gain insights that help them navigate the politics and participate in the change-making advocacy of disability.

Restricted to UH students matriculating in Fall 2020 or later. HNUH268Y is part of the Body Politics thematic cluster and must be paired with HNUH268A to complete the cluster. Body Politics courses will be offered through Spring 2023.

0101	Jessica McKechnie M 2:30pm - 5:00pm	Seats (Total: 20) TWS 1313	

HNUH278A **The Research Behind Headlines on Words, Thought, and Behavior**

Credits: 3 | Grading Method: Regular | General Education: DSHS, SCIS

Cross-listed with: HESP214. Credit only granted for: HNUH278A or HESP214.

How does the human mind use language? Type "Language Science News" into your Google search bar. Among the more than 3 billion hits, headlines like "What is love? It depends what language you speak" and "Science's English dominance hinders diversity" invite you to think about the impact of words on thought and behavior. These are stories about how humans acquire and use language, but they ultimately address big questions about how we experience knowledge itself. In a world of unprecedented access to science journalism, did you ever read a headline about human behavior and wonder: How do we know? This class takes up the elegant ways cognitive scientists design experiments to answer crucial questions about language and thought, brain and behavior, that have no intuitive answers. Students will dive deep into the media coverage of their favorite claims about what we know, debate the psychological science behind these claims, and develop transferable critical-thinking skills in the process.

Restricted to UH students matriculating in Fall 2020 and later. This course is the required I-Series course in the "In A Word" thematic cluster. Other courses in the "In A Word" cluster will be offered through Spring 2023; and HNUH278A will be offered through Fall 2023.

0101	Jared Novick TuTh 2:00pm - 3:15pm	Seats (Total: 60) TWS 0320

HNUH278X **A Way with Words: Order and Knowledge in Enlightenment Europe**

Credits: 3 | Grading Method: Regular | General Education: DSHU, DVUP

"Without language, things cannot well be expressed or published to the World," wrote Edward Phillips in The New World of English Words (1658). In this course, we will interrogate the power of words to communicate and classify, to impose meaning and order in the historical moment that brought about many of our modern institutions and ways of thinking: the European Enlightenment. From the binomial taxonomies with which Linnaeus ordered "chaos and confusion" to the racist taxonomies deployed to reinforce inequities, we will survey how language facilitated the consolidation of European power at home and abroad. We will further develop the visual literacy to decode how images convey knowledge. Looking back to the period that gave shape to many modern languages, institutions, and divisions of knowledge, we will be poised to face today's crises.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "In A Word" thematic cluster. In A Word courses will be offered through Spring 2023.

0101	Lauren Cannady MW 2:30pm - 3:45pm	Seats (Total: 20) YDH 0104A
0201	Lauren Cannady MW 5:30pm - 6:45pm	Seats (Total: 20) YDH 0104A

HNUH288X **The Human Interface, from Anatomy to Avatar**

Credits: 3 Grading Method: Regular General Education: DSHU

Anthropomorphized pets post on Instagram, FitBits transmit biodata, bots influence elections... In the digital world designed by and for human beings, all sorts of actors imitate people, while people are objectified through surveillance and data mining. Despite a frequent distinction between the internet and 'IRL,' physical bodies are wrapped up in every aspect of existence online: from the factory workers who build our technology to the postures and gestures those devices require us to adopt. Exploring this range of bodily phenomena, this course considers what constitutes a "human body" online and how digitality and connectivity inform our understanding of personhood. From RPGs and dance challenges to AI and visceral responses to internet content, students will analyze the complex relationships between the technological and the embodied, the social and the political, the past and the future.

Restricted to UH students matriculating in Fall 2020 or later. This course is part of the "Virtually Human" thematic cluster. Virtually Human courses will be offered through Spring 2023.

0101	Alexandra Harlig MW 2:30pm - 3:45pm	Seats (Total: 20) YDH 0104F
0201	Alexandra Harlig TuTh 2:00pm - 3:15pm	Seats (Total: 20) YDH 0104A

HNUH288Z **Non-Human Animals in Human Society**

Credits: 3 Grading Method: Regular

As humans, we share our lives with other animals in diverse and conflicting ways. Non-human animals can be consumed as food, used for scientific research, and treasured as companions. They are commercialized, worshipped, and stereotyped. Our complex relationships with other animals emerge from and fuel debates about what makes "us" different from "them." In this course, we will ask (and attempt to answer) questions such as: What roles do we open to (or force on) non-human animals in American culture and why? Who makes these decisions and what is their effect on animal life? We will explore the evolution of modern human-animal relationships to contextualize major social and scientific debates that have arisen in the last century, including what it means to be human in this context, and why they matter.

Restricted to UH students matriculating in Fall 2020 or later. HNUH288Z is part of the Virtually Human thematic cluster and pairs with HNUH288A to complete the cluster. Virtually Human courses will be offered through Spring 2023.

0101	Halli Weiner TuTh 11:00am - 12:15pm	Seats (Total: 20) ASY 3221

HNUH300 **Vantage Point Seminar**

Credits: 2 Grading Method: Regular

Goal-setting and project-design seminar required of all UH students and taken in the second semester of the sophomore year or the first semester of the junior year.

Restricted to UH students matriculating in Fall 2020 or later. Vantage Point is for UH students in their 4th or 5th semester who have already completed or are completing their second cluster or track for the UH Citation.

0101	Christine Jones, Robert Graham MW 10:00am - 10:50am	Seats (Total: 20) ATL 2316
0201	Christine Jones, Ingrid Satelmajer TuTh 10:00am - 10:50am	Seats (Total: 10) ATL 0201
0301	Christine Jones, Veronica Zebadua-Yanez MW 2:00pm - 2:50pm	Seats (Total: 20) JMP 1202
0401	Christine Jones, Leigha McReynolds MW 3:00pm - 3:50pm	Seats (Total: 20) ANS 0412
0601	Marisa Franco, Christine Jones MW 11:00am - 11:50am	Seats (Total: 20) ANS 0402
0701	Christine Jones, Zachary Dorner TuTh 9:30am - 10:20am	Seats (Total: 20) ATL 2316
0801	Lauren Cannady, Christine Jones TuTh 11:00am - 11:50am	Seats (Total: 20) PLS 1146
0901	Christine Jones, Ingrid Satelmajer TuTh 2:00pm - 2:50pm	Seats (Total: 20) JMP 1109
1001	Christine Jones, Alexandra Harlig TuTh 3:30pm - 4:20pm	Seats (Total: 20) ATL 1114

HNUH318T **Political Engagement and Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM310. Credit only granted for: HNUH318T or FGSM310.

An examination of questions and issues in the practice of political engagement and advocacy. Guest lecturers drawn from political, civic engagement, and advocacy arenas will visit class and participate in discussions.

0101	Dale Crowell	Seats (Total: 23)
	M 6:00pm - 9:00pm	ESJ B0322

HNUH328T **Public Health Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM320. Credit only granted for: UNIV348P, HNUH328T or FGSM320. Formerly: UNIV348P.

An exploration of the major questions and issues facing the U.S. health care system as well as the formulation and implementation of health policy.

0101	Samuel Kessel	Seats (Total: 25)
	Tu 3:30pm - 6:30pm	ESJ 1309

HNUH338T **Homeland and National Security Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM330. Credit only granted for: UNIV348T, HNUH338T or FGSM330. Formerly: UNIV348T.

An examination of the concept of U.S. homeland and national security, threats, and major vulnerabilities in the context of recent history.

0101	Andrew Fausett, Casie Antalis	Seats (Total: 21)
	M 6:00pm - 9:00pm	AJC 2119

HNUH348T **Energy and Environmental Policy**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Federal Fellows Program; and permission of instructor. Cross-listed with: FGSM340. Credit only granted for: UNIV348E, HNUH348T or FGSM340. Formerly: UNIV348E.

An examination of issues of energy and environmental sustainability through an investigation of policy-making in energy, climate change, and sustainable development.

0101	Ed Fendley	Seats (Total: 23)
	M 3:30pm - 6:30pm	AJC 2121

HNUH358T **Critical Regions and International Relations**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM350. Credit only granted for: HNUH358T or FGSM350.

An examination of international relations and foreign policy challenges in critical regions.

0101	Danusia Hubah, Eric Ciaramella	Seats (Total: 21)
	Th 7:00pm - 10:00pm	AJC 2119

HNUH359T **International Security and Intelligence**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and Permission of Department. Cross-listed with: FGSM355.

An examination of questions and issues in the practice of international security and intelligence. Guest lecturers drawn from Washington intelligence and security communities will also visit class and participate in discussion.

0101	Paul Maykish, William Usher	Seats (Total: 20)
	Th 7:00pm - 10:00pm	ESJ 1309

HNUH368T **U.S. Diplomacy and Policymaking**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM360. Credit only granted for: HNIUH368T or FGSM360.

An examination of questions and issues in the practice of contemporary diplomacy and policy-making. Guest lecturers drawn from Washington policy-making and foreign service communities will visit class and participate in discussion.

0101	Nadia Farra	Seats (Total: 21)
	Tu 6:30pm - 9:30pm	ESJ 1309

HNUH378T **Science Diplomacy: Foreign Policy & Science, Technology, and Innovation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM370. Credit only granted for: UNIV389F, HNUH378T or FGSM370. Formerly: UNIV389F.

An exploration of the critical roles scientific knowledge and technological innovation play in the formation and implementation of foreign policy issues, including energy and climate change, public health, space and innovation, and economic development.

0101	Jonathan Margolis, Jeffrey Haeni	Seats (Total: 20)
	W 5:30pm - 8:30pm	ESJ 1309

HNUH388T **Responses to Global Challenges**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM380. Credit only granted for: UNIV389B, HNUH388T or FGSM380. Formerly: UNIV389B.

An examination of global issues and responses primarily from the perspective of the practitioner. The focus will be on social, humanitarian, and human rights issues in different global contexts.

0101	Rhoda Margesson	Seats (Total: 20)
	W 5:30pm - 8:30pm	AJC 2134

HNUH398P **Federal and Global Experiential Learning**

(Perm req)

Credits: 3-9 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Permission of instructor. Repeatable to 9 credits if content differs. Cross-listed with: FGSM398. Credit only granted for: FGSM398 or HNUH398P.

This is the experiential course component of the Federal Fellows Program and Global Fellows Program.

0101	Joan Burton, Jayakumar Arasan, Naz Beyranvand	Seats (Total: 25)
	Class time/details on ELMs	ONLINE

HNUH398T **Water Security and Global Health Challenges**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Global Fellows Program; and permission of instructor. Cross-listed with: FGSM390. Credit only granted for: HNUH398T, HONR378M, or FGSM390.

An examination of questions and issues of global health and water security. Expert practitioners will also visit class and participate in discussions.

0101	Jonathan Margolis, Julien Katchinoff	Seats (Total: 20)
	W 3:00pm - 6:00pm	PHY 2208

HONR Honors Fall 2022

HONR349V **Honors Colloquium; Dubai: Global Immersion Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

Contact department for information to register for this course.

HONR358A **Honors Practicum**

Credits: 3 Grading Method: Sat-Fail

For student section leaders of HONR100 or HONR200.

Contact department for information to register for this course.

HONR368A **MGA Legislative Seminar**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail General Education: FSPW

Prerequisite: Students who have taken courses with comparable content may contact the department; or ENGL101. Restriction: Permission of ARHU-English department. Cross-listed with: ENGL381. Credit only granted for: HONR368A or ENGL381. Additional information: Application required. Contact english@umd.edu for more information.

Prepares students to intern for the Maryland General Assembly. Introduces standard legislative genres and assigns extended practice in researching legislative issues.

Cross-listed with ENGL381. Credit only granted for one of the following: ENGL381 or HONR368A. Admission to this course is by application only.

Click here for more details.

0101	Thomas Lowderbaugh	Seats (Total: 15)
	Tu 3:30pm - 6:00pm	TWS 0232

IDEA Academy for Innovation & Entrepreneurship Fall 2022

IDEA101 **The Carillon Studio: Creative Problem Solving and Designing Your Maryland Experience**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Carillon Communities Program.

Students learn creative problem solving and collaborative strategies that will drive academic success and empower students to tackle big questions.

Restricted to students in Carillon Communities.

0101	Alia Lancaster	Seats (Total: 19)	
	Meets August 29, 2022 - November 18, 2022		
	Tu 4:00pm - 5:30pm	ESJ B0322	
	M 5:00pm - 5:50pm	ESJ 0202	Discussion

0102	Leslie Krafft **Meets August 29, 2022 - November 18, 2022** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) JMZ 3205 ESJ 0202	 Discussion
0103	Markell Saunders **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) KEY 0124 ESJ 0202	 Discussion
0104	Jennifer Lindstrom **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) ESJ 2101 ESJ 0202	 Discussion
0105	Tion Taylor **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 19) ESJ 2101 ESJ 0202	 Discussion
0106	Lorae Bonamy-Lohve **Meets August 29, 2022 - November 18, 2022** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 21) JMZ 2123 ESJ 0202	 Discussion
0107	David Steele **Meets August 29, 2022 - November 18, 2022** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 21) JMZ 1224 ESJ 0202	 Discussion
0108	Louisa Nkrumah **Meets August 29, 2022 - November 18, 2022** Tu 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 21) HBK 1112 ESJ 0202	 Discussion

0109	Imani Burwell **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 19) ESJ B0322 ESJ 0202	 Discussion
0110	Jillian Cordial **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 19) PLS 1111 ESJ 0202	 Discussion
0111	Jamila Aswad **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) JMZ 2123 ESJ 0202	 Discussion
0112	Bria Bennett **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 18) ESJ B0322 ESJ 0202	 Discussion
0113	Laura Widener **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 18) JMZ 0118 ESJ 0202	 Discussion
0114	Samuel Shie **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) KEY 0119 ESJ 0202	 Discussion
0115	Jennifer Cox **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 18) JMZ 1117 ESJ 0202	 Discussion

0116	Isabelle Van Benschoten **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) JMZ 1224 ESJ 0202	 Discussion
0117	Nikki Charlestin **Meets August 29, 2022 - November 18, 2022** Th 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) JMZ 3203 ESJ 0202	 Discussion
0118	Diana Forbus **Meets August 29, 2022 - November 18, 2022** W 4:00pm - 5:30pm M 5:00pm - 5:50pm	Seats (Total: 16) EDU 3315 ESJ 0202	 Discussion

IDEA258A **Special Topics in Innovation; Innovation Tools & Mindsets**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

This introductory course allows students to try on the behaviors of a creative problem-solver, leveraging the methods and tools of design thinking, a human-centered innovation process. This is a highly experiential, often experimental course. All majors are encouraged to enroll.

0101	Christina Hnatov Class time/details on ELMs	Seats (Total: 60) ONLINE	
0102	Brooke Smith Class time/details on ELMs	Seats (Total: 60) ONLINE	
0103	Rachel Thompson Class time/details on ELMs	Seats (Total: 60) ONLINE	
FC01	Mira Azarm, Christina Hnatov M 4:30pm - 5:45pm Class time/details on ELMs *Restricted to students in Freshmen Connection*	Seats (Total: 30) ESJ 2101 ONLINE	 Discussion

IDEA258D **Special Topics in Innovation; Explorations in Design**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

"Explorations in Design" gives students the opportunity to apply their unique backgrounds to the realm of design. Students will engage in hands-on learning with real world applications to incorporate design thinking into everyday life. By exploring each stage of the design process (from ideating to prototyping), students will develop a final project to pitch at the end of the semester.

0101	Brooke Smith	Seats (Total: 20)
	M 11:00am - 12:15pm	ESJ 2101

IDEA258U **Special Topics in Innovation; Introduction to UI/UX Design**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics in innovation

A student-led course through Student-Initiated Courses (STICs)@ UMD. What does "User Experience" mean? It was a term coined by cognitive psychologist and designer Don Norman in the 1990s on the cusp of the new digital era; however, the field in practice has existed long before that. Unfortunately, due to its over use and misuse, the pure concept of UX has become lost in the weeds and details of all of its components and methods. In this course, we will take a deep look at the true meaning of UX as simply a user's experience and what that means for you as both a designer and a user. You will learn about core UX principles and methodologies from both an academic and practical standpoint and be challenged to apply what you learn in classroom workshops and assignments. Finally, you will be asked to think both inside and outside the bounds of technology to find innovative solutions to real world design problems. For more information on the course, visit go.umd.edu/idea258u

0101	Mira Azarm	Seats (Total: 25)
	M 9:00am - 10:30am	ESJ 2101

IDEA379A **Advanced Topics in Innovation; Design Your Purpose**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Advanced topics in innovation

What do you want to do once you graduate? That is the question we tackle in this course. Throughout the semester, you'll use design thinking and lean startup skills and mindsets to explore your personal and professional development goals and explore potential career paths. Using empathy, brainstorming, and prototyping tools, you'll design potential futures for yourself and test them to see if they are a good fit for you.

0101	Brooke Smith, Christina Hnatov	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

IDEA398A **Special Topics in Coaching; Coaching in STICs**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics in coaching others

Contact department for information to register for this course.

IDEA398C **Special Topics in Coaching; Carillon Peer Mentors**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Special topics in coaching others

0101	Melissa Del Rios, Erica Estrada-Liou	Seats (Total: 20)
	F 2:00pm - 2:50pm	ESJ 2101
	Contact instructor or department for details.	

IDEA698 **Independent Study in Design Thinking**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

Restriction: Permission of the Academy for Innovation & Entrepreneurship. Graduate students apply design thinking and/or lean startup concepts to a real-world project. This course requires a high degree of self-direction in all aspects of the project including defining specific milestones and deliverables. There will be regular coaching from an Academy for Innovation and Entrepreneurship team member.

0101	Mira Azarm	Seats (Total: 6)
	Contact instructor or department for details.	

IMDM Immersive Media Design Fall 2022

IMDM101 **Introduction to Immersive Media**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: CMSC101 or IMDM101. Formerly: CMSC101.

An introduction to the basic practices, concepts and issues in Immersive Media Design. Conducted as a hybrid studio/lecture course, students will work collaboratively in teams to complete both research and practical projects, including surveying current artists and practice in immersive media; completing studio-based interactive projects that fuse computational media into physical objects; and working in teams to ideate and execute large scale, immersive media works.

0101	Mollye Bendell MW 11:00am - 12:15pm	Seats (Total: 30) EGR 0135
0201	Johab Silva TuTh 12:30pm - 1:45pm	Seats (Total: 30) IRB 2207

IMDM127 **Creative Coding for Digital Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not have completed any courses from CMSC131-499 course range; and must not be concurrently enrolled in CMSC131. Credit only granted for: IMDM127 or CMSC131.

An introduction to the principles of Computer Science supported by exercises in computer programming with an emphasis on creative coding, algorithmic image creation and manipulation, and interactive experiences. Students will make use of both exploratory coding approaches, and problem/solution-driven approaches, to design and implement software with visual and auditory output. The course also includes an introduction to a wide variety of issues relating to computer science and software, including software design and construction, problem-solving, and fundamental questions about the nature, limitations, and ethical use of computers and algorithms. It also explores how creativity tools can be used and as well as providing some insight into how they are implemented. The course is targeted to students with a broad diversity in backgrounds and interests. No prerequisites are assumed beyond high school algebra.

0101	Evan Golub MWF 3:00pm - 3:50pm	Seats (Total: 30) CSI 3120

IMDM227 **Introduction to Computational Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in IMDM101 and IMDM150; and minimum grade of C- in CMSC131 or (IMDM127 and CMSC122). Restriction: Must be in the Immersive Media Design program or Permission of IMDM - Immersive Media Design program.

Comprehensive introduction to programming for visual, auditory and tactile art. Introduction to basic programming constructs, algorithms, data structures, and data transformations for creating and managing multimedia content, and conducting user interaction. Emphasis on programming and software design including the interfaces between hardware and software in multimedia devices, creating graphical user interfaces, and basic graphics and sound rendering.

0101	Stevens Miller TuTh 11:00am - 12:15pm	Seats (Total: 30) PLS 1129
0201	Stevens Miller TuTh 9:30am - 10:45am	Seats (Total: 30) PLS 1129

IMDM327 **Computational Virtual Reality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in IMDM227 and CMSC132. Restriction: Must be in the Immersive Media Design, Computing program; or Permission of IMDM - Immersive Media Design program.

Introduction to mechanisms and programming for virtual reality, augmented reality, and related technologies. Covers elements of a standard VR system, including creating, managing and rendering visual and audio VR content, tracking orientation and positions of head mounted display (HMD) and controller, rendering stereo imagery for VR headsets, and implementing approaches for user interactivity.

0101	Johab Silva	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	ATL 2428

IMDM350 **Advanced Digital Media Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in IMDM150. Restriction: Must be in the Immersive Media Design, Emerging Creatives program; or Permission of IMDM - Immersive Media Design program.

Advanced theories and concepts pertinent to the fields of immersive media design, new media art, design, and cultural technology. Also looks at ways in which contemporary societal norms are being shaped by game culture, social and mobile media, AR/VR escapism, network aesthetics, hacktivism, open-source culture, neural networks, artificial intelligence, and machine learning, among others. This course addresses the broad range of ways in which the accelerating pace of technological advances influence how we mediate the world around us and examines the environmental, social, political, and ethical implications of its use.

0101	Jason Farman	Seats (Total: 30)
	MW 3:00pm - 4:15pm	JMZ 1224

IMMR Immigration Studies Fall 2022

IMMR200 **Introduction to Immigration and Migration Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduces concepts and theoretical interpretations about the causes of international migration; provides an historical overview of the main flows of immigration to the U.S.; analyzes economic, political, social, and cultural aspects that impact the immigrants' settlement process.

0101	Thayse Lima	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	PLS 1113

IMMR319D **Special Topics in Immigration and Migration Studies; Black Immigrants: Challenges and Impacts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Thematic exploration of a topic in immigration or migration studies with emphasis on understanding how the movement of people is relevant in the contemporary world.

Cross-listed with AASP398B. Credit only granted for AASP398B or IMMR319D. How does immigration affect Black communities in the United States? How are foreign Black affected by living in the United States? Students will learn about: US history of immigration policy; pull and push factors driving Black migration; comparisons in socioeconomic outcomes between foreign and native Blacks; and differences between 1st and 2nd generation Black immigrants.

0101	Chinyere Osuji	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ONLINE

IMMR394 **Growing Up Asian American: The Asian Immigrant Family and the Second Generation**

Credits: 3 Grading Method: Regular General Education: DVCC

Cross-listed with: AAST394, AMST324. Credit only granted for: AAST394, AAST398E, AMST324, AMST328V, IMMR319G or IMMR394. Formerly: AAST398E.

An interdisciplinary course examines the experiences of children of Asian immigrants in the U.S., focusing on intergenerational dynamics in the Asian immigrant family, their intersections with race, gender, class, sexuality, and religion, and how these shape second-generation Asian American life. Topics include identity and personhood, the model minority myth and education, work and leisure, language and communication, filiality and disownment, mental health and suicide.

0101	Yeram Cheong	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	ESJ B0320

IMMR399 **Internship in Immigration/Migration Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

Prerequisite: HIST222, IMMR200, or IMMR400; and permission of the Center for Global Migration Studies required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Repeatable to 6.0 credits if content differs. Additional information: This course is intended primarily for students seeking the Immigration and Migration Studies transcript notation, but exceptions will be considered for students with educational or career interests that lie in this area. Student internships must be approved by the Executive Director of the Center for Global Migration Studies. Students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available. Internship experience with an organization that works with or studies migration or immigrant populations. This experiential learning course provides training that enriches the students' academic field of study and the IMMR transcript notation. Students submit a final written report of how the experience ties into their major field of study.

0101	Katarina Keane	Seats (Total: 2)	
	Contact instructor or department for details.		

INAG Institute of Applied Agriculture Fall 2022

INAG100 Introduction to Plant Science

Credits: 4 Grading Method: Regular

Restriction: Must be a student in the Institute of Applied Agriculture; or permission of AGNR-Institute of Applied Agriculture department. Credit only granted for: INAG100, PLSC100, PLSC101, PLSC110 or PLSC112.

A general introduction to plant science designed to provide the students with a working knowledge of the fundamental structures and processes of plants. Content includes plant anatomy, physiology, genetics and environmental relationships.

0101	Kenneth Ingram	Seats (Total: 15)	
	MWF 8:00am - 8:50am	JUL 1123	
	W 9:00am - 10:50am	JUL 1111	Lab
0102	Kenneth Ingram	Seats (Total: 15)	
	MWF 8:00am - 8:50am	JUL 1123	
	F 9:00am - 10:50am	JUL 1111	Lab

INAG102 Agricultural Entrepreneurship

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. May not count toward any BMGT major or minor requirement.

This course introduces fundamental concepts related to launching a profitable agricultural business. Topics include idea generation, opportunity recognition, conducting feasibility studies, assembling the entrepreneurial team, and financing the new venture, among others. Students will learn knowledge and skills relevant to starting a new agricultural business.

0101	Temitope Fajingbesi	Seats (Total: 35)
	MWF 12:00pm - 12:50pm	JUL 1123

INAG103 **Agricultural Marketing**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture. Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

Principles of market demand are used to develop a consumer oriented market strategy for agricultural businesses. Topics include market structures, target marketing, market segmentation, niche marketing and direct marketing. Market concepts unique to agriculture products are also covered.

0101	Meredith Epstein	Seats (Total: 25)
	MWF 11:00am - 11:50am	JUL 1123

INAG106 **Pesticide Use and Safety**

Credits: 2 Grading Method: Regular, Audit

Restriction: Must be in a major in AGNR-Institute of Applied Agriculture department; or must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program or to students in the College of Agriculture and Natural Resources (AGNR).

An overview of pesticide use and safety. Topics include environmental protection, labeling, personal safety, first aid, formulation and chemistry, equipment, disposal, storage, record-keeping and liability. The course prepares students to take the Maryland State test for a private applicator's license.

0101	Ronald Myers	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INAG110 **Oral Communication**

Credits: 3 Grading Method: Regular, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

0101	Eric Dunning MWF 8:00am - 8:50am	Seats (Total: 19) HBK 0108
0201	Samuel Rubin MW 3:00pm - 4:15pm	Seats (Total: 19) ITV 1100
0301	Chelsea Mays-Williams MWF 9:00am - 9:50am	Seats (Total: 19) PLS 1146
0401	Eric Dunning MWF 9:00am - 9:50am	Seats (Total: 19) JMZ 1103
0501	David Gormong MWF 9:00am - 9:50am	Seats (Total: 19) ATL 1106
0701	Chelsea Mays-Williams MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1146
0801	Chelsea Mays-Williams MWF 8:00am - 8:50am	Seats (Total: 19) PLS 1146
0901	Lori Sefton MWF 10:00am - 10:50am	Seats (Total: 19) PLS 1115
1001	Chelsea Mays-Williams MWF 11:00am - 11:50am	Seats (Total: 19) HBK 0108
1101	David Gormong MWF 11:00am - 11:50am	Seats (Total: 19) ATL 1106
1201	George Kurtzweil MWF 12:00pm - 12:50pm	Seats (Total: 19) JMZ 1224
1301	Lori Sefton MWF 12:00pm - 12:50pm	Seats (Total: 19) PLS 1115
1401	Samuel Rubin MWF 12:00pm - 12:50pm	Seats (Total: 19) ITV 1100

1501	Lori Sefton MWF 1:00pm - 1:50pm	Seats (Total: 19) PLS 1115
1601	Samuel Rubin MWF 1:00pm - 1:50pm	Seats (Total: 19) ITV 1100
1701	George Kurtzweil MWF 1:00pm - 1:50pm	Seats (Total: 19) JMZ 1224
1801	David Gormong MWF 2:00pm - 2:50pm	Seats (Total: 19) PHY 4222
1901	George Kurtzweil MWF 2:00pm - 2:50pm	Seats (Total: 19) JMZ 1224
2001	Samuel Rubin MWF 2:00pm - 2:50pm	Seats (Total: 19) ITV 1100
2101	Amy Fisher MW 3:00pm - 4:15pm	Seats (Total: 19) PLS 1172
2201	Amy Fisher M 6:00pm - 8:50pm	Seats (Total: 19) PLS 1111
2301	Amy Fisher W 6:00pm - 8:45pm	Seats (Total: 19) PLS 1111
2401	David Gormong TuTh 8:00am - 9:15am	Seats (Total: 19) JMZ 3122
2501	Eric Dunning TuTh 8:00am - 9:15am	Seats (Total: 19) PLS 1168
2601	David Gormong TuTh 9:30am - 10:45am	Seats (Total: 19) JMZ 3122
2701	Eric Dunning TuTh 9:30am - 10:45am	Seats (Total: 19) ATL 1410
2801	Chelsea Mays-Williams TuTh 9:30am - 10:45am	Seats (Total: 19) PLS 1168

2901	Lori Sefton TuTh 11:00am - 12:15pm	Seats (Total: 19) KEY 0119
3001	Chelsea Mays-Williams TuTh 11:00am - 12:15pm	Seats (Total: 19) EGR 3102
3101	George Kurtzweil TuTh 11:00am - 12:15pm	Seats (Total: 19) SQH 1111
3201	Amy Fisher TuTh 12:30pm - 1:45pm	Seats (Total: 19) PLS 1158
3301	Lori Sefton TuTh 12:30pm - 1:45pm	Seats (Total: 19) KEY 0119
3401	George Kurtzweil TuTh 12:30pm - 1:45pm	Seats (Total: 19) SQH 1123
3501	George Kurtzweil TuTh 2:00pm - 3:15pm	Seats (Total: 19) SQH 1123
3601	Amy Fisher TuTh 2:00pm - 3:15pm	Seats (Total: 19) PLS 1168
3701	Samuel Rubin TuTh 2:00pm - 3:15pm	Seats (Total: 19) SPH 0307
3801	Samuel Rubin TuTh 3:30pm - 4:45pm	Seats (Total: 19) SPH 0307
3901	Amy Fisher TuTh 3:30pm - 4:45pm	Seats (Total: 19) PLS 1129
4001	Samuel Rubin TuTh 5:00pm - 6:15pm	Seats (Total: 19) SPH 0307

INAG110S **Oral Communication**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, THET285.

A study of how perception, self-concept, and verbal and nonverbal communications affect the communication process as it emerges in the workplace. The course provides skill training in speech writing, public speaking, group communication, interpersonal communication, listening, and responding.

Restricted to College Park Scholars.

0601	David Gormong MWF 10:00am - 10:50am	Seats (Total: 19) ATL 1106

INAG123 **People, Planet, and Profit: Digging Into Sustainable Agriculture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP, SCIS

Investigates the principles and practices of sustainable agriculture and their relationship to the greater food system. Explores the social (people), environmental (planet), and economic (profit) impacts of agriculture - from challenges to opportunities. INAG123 applies the principles of sustainability to various agricultural production practices and systems - at a range of different scales - to see what lessons these varied models can offer. Along the way, we will consider domestic issues such as food safety and distribution, food justice, cultural relevance, biodiversity, farming communities, and effects on local economies.

Students will have in person field trips scheduled and must provide their own transportation (actual dates to be determined).

0101	Meredith Epstein W 2:00pm - 5:00pm	Seats (Total: 25) JUL 1123

INAG199 **Special Problems**

Credits: 1-3 Grading Method: Regular

Restricted to students in the AGNR-Institute of Applied Agriculture department. Others by permission of the AGNR-Institute of Applied Agriculture department. A detailed study, including a written report, involving a current issue in an agricultural area that relates to the student's major. The study is conducted under the direction of a faculty member. A maximum of three credit hours of special problems may be applied toward graduation.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 10)
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 10)
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 10)
0401	Temitope Fajingbesi Contact instructor or department for details.	Seats (Total: 5)

0501	Heather McHale Contact instructor or department for details.	Seats (Total: 10)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
0701	Thomas Mazzone Contact instructor or department for details.	Seats (Total: 5)

INAG199C **Special Problems; Special Problems in AgriScience**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Students must successfully complete an accredited high school agriculture program with a minimum of 4 agriculture courses with a minimum grade of B in each course. Demonstrates the application of scientific principles of agriculture by developing and presenting an oral report on a capstone project relevant to ccurrent agriculture issues.

0101	Heather McHale Contact instructor or department for details.	Seats (Total: 10)

INAG199D **Special Problems; Agricultural Tractor Operations and Maintenance**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: IAA students are given priority. Other UMD students will be granted permission to enroll if seats are available. Class will be held at the Central Maryland Research and Education Center (CMREC), Clarksville Facility, 4240 Folly Quarter Road, Ellicot City, MD 21042. Dates are October 1 and 2, 2022, with a rain date of October 8 and 9, 2022. Students will need to provide their own transportation to and from the facility. This class introduces students to the operation and maintenance of agricultural tractors and farm equipment. Students learn to safely perform regular maintenance, and handle materials.

0101	Jeff Semler, Heather McHale Contact instructor or department for details.	Seats (Total: 14)

INAG199E **Special Problems; Professional Horticulture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Only open to IAA students who have successfully completed the approved CPH program of study with an unweighted cumulative grade point average of 3.0 or higher for all completed CPH courses as noted on the official high school transcript, and passed the student CPH certification exam administered by the Maryland Nursery, Landscape and Greenhouse Association, Inc. (MNLGA).

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)

INAG201 **Agricultural Human Resources Management**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: May not count toward any BMGT major or minor requirement.

The course introduces students to the study and application of the basic principles of human relations and personnel management. A variety of approaches to recruiting, training, delegating, motivating, and appraising employees are among the topics discussed.

0101	Kenneth Ingram	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JUL 1123

INAG203 **Agricultural Finance**

Credits: 3 Grading Method: Regular, Audit

Restriction: Students at the Institute of Applied Agriculture (IAA); or students at the College of Agriculture and Natural Resources (AGNR); or permission may be granted to other students based on available space. Additional information: Course cannot be used to fulfill a requirement for a Robert H. Smith School of Business major or minor.

This course introduces fundamental concepts related to the financial management of an agricultural business. Topics include financial statement analysis, financial planning, the relationship between risk and return, the time value of money, costs associated with borrowed funds, sources of capital, financial markets and intermediaries in agriculture, and personal finance, among others. Students will gain financial knowledge and skills necessary for managing a profitable agricultural business.

0101	Temitope Fajingbesi	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JUL 1123

INAG226 **Diseases of Ornamentals and Turf**

Credits: 3 Grading Method: Regular, Audit

Recommended: Completion of one of the following is recommended: PLSC 253, PLSC 254, INAG 107, PLSC 305. Additional information: Priority in enrollment will be given to students within the Institute of Applied Agriculture.

The course will cover various topics such as plant pathology, disease control practices, and an in depth coverage of the major diseases of ornamentals and turfgrasses in the Mid-Atlantic region. Emphasis will be placed on identification of disease signs and symptoms. Over 50 diseases will be covered during the semester.

0101	Geoffrey Rinehart	Seats (Total: 15)	
	Tu 12:30pm - 2:20pm	JUL 1111	
	Th 12:30pm - 2:20pm	JUL 1111	Lab

INAG231 **Insects of Ornamentals and Turf**

Credits: 3 Grading Method: Regular, Pass-Fail

Recommended: PLSC253, PLSC254, or PLSC305; or INAG107. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources; or permission of AGNR-Institute of Applied Agriculture department. Additional information: Priority enrollment will be given to students in the IAA program.

A study of the major insect pests and beneficial insects of ornamental plants and turfgrasses in the Mid-Atlantic region. The student will be responsible for insect identification, life history, and control practices of approximately 100 insects. An insect collection consisting of both insect pests and beneficial insects is required.

0101	Geoffrey Rinehart	Seats (Total: 18)	
	WF 10:00am - 10:50am	JUL 1123	
	M 9:00am - 10:50am	JUL 1111	Lab

INAG242 **Golf Course Design and Construction**

Credits: 3 Grading Method: Regular General Education: DSSP

An appreciation and understanding of the game of golf is obtained through lectures on the history, organizations, and rules of the game. Golf course design theories, great architects and their courses, and construction specifications are discussed. Students will complete two golf course design projects.

0101	Kenneth Ingram	Seats (Total: 25)	
	MW 2:00pm - 2:50pm	JUL 1111	
	W 3:00pm - 4:50pm	JUL 1111	Lab

INAG250 **Fundamentals of Agricultural Mechanics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources OR Permission of AGNR-Institute of Applied Agriculture Department. Credit only granted for: PLSC204 or INAG250. Additional information: Priority given to IAA majors and AGNR students whose major requires this course. Permission will be granted to other students on seats available basis.

A comprehensive course that teaches the fundamentals of agricultural related mechanics. Lecture and lab exercises will cover the broad range of topics associated with agricultural mechanics including electricity, plumbing, welding processes, and wood and metal working applications. Emphasis will be given to the design and installation of electrical circuits. It will also include project planning and implementation including development of safety protocols for each area of study and introduction of GPS equipment and software for survey data collection.

Students must pay a $75 course materials fee.

0101	Thomas Mazzone TuTh 9:30am - 12:20pm	Seats (Total: 10) ANS 0504
0201	Thomas Mazzone TuTh 2:00pm - 4:50pm	Seats (Total: 10) ANS 0504

INAG251 **Landscape Construction**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: INAG250 or PLSC204. Restriction: Must be in a major in AGNR-College of Agriculture & Natural Resources. Additional information: Priority enrollment is given to Landscape Management majors in the Institute of Applied Agriculture.

An introductory course in the basics of hardscape topics in landscape construction. Covers fundamental construction layout using surveying techniques; GPS; elements of construction dealing with wood, concrete, masonry, pavers, and/or electrical amenities used in hardscape construction. Emphasis will be placed on safety, interpretation of construction drawings or plans, specifications for specific structures, materials selection, cost estimations, site preparation and typical construction techniques.

0101	Thomas Mazzone W 2:00pm - 6:00pm	Seats (Total: 25) ANS 0504

INAG253 **Agricultural Strategic Communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Recommended: INAG252.

Introduces the fundamental concepts and applications of strategic communication in agricultural organizations. Topics include strategic communication planning; communication and culture; communication and change; managing internal and external communication; and corporate responsibility. Students will learn how to use communication to accomplish organizational goals.

0101	Eric Dunning MWF 1:00pm - 1:50pm	Seats (Total: 25) JUL 1123

INAG288 **Internship**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

On-site internship training in the student's major area of study. Students must complete a minimum of 320 working hours at an approved work site. Course work also includes weekly written assignments and a site visit assessment.

0101	Geoffrey Rinehart Contact instructor or department for details.	Seats (Total: 5)	
0201	Meredith Epstein Contact instructor or department for details.	Seats (Total: 5)	
0301	Kenneth Ingram Contact instructor or department for details.	Seats (Total: 5)	
0501	Heather McHale Contact instructor or department for details.	Seats (Total: 5)	
0701	Thomas Mazzone Contact instructor or department for details.	Seats (Total: 5)	

INAG289 **Internship Experience & Professional Development**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Professional development and reflective analysis of the experience from the Practicum (INAG 288). Based on their 320-hours of internship work experience, students will write an internship report and analysis, deliver an oral presentation, and develop professional skills and materials needed to enter their careers.

Prerequisite: INAG288. Restriction: Must be enrolled in the Institute of Applied Agriculture students; or permission of the Institute of Applied Agriculture.

0101	Rebecka Jones M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	 Discussion
0102	Rebecka Jones M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	 Discussion
0103	Rebecka Jones M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	 Discussion

0104	Rebecka Jones M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 4) JUL 1123 ONLINE	 Discussion
0105	Rebecka Jones M 3:00pm - 5:00pm Class time/details on ELMs	Seats (Total: 5) JUL 1123 ONLINE	 Discussion

INFM Information Management Fall 2022

INFM600 **Information Environments**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

An exploration of various models and methodologies used to capture and deploy internal and external information and knowledge in a number of settings; organizational analysis in terms of information creation, flow, sharing, conservation, and application to problem solving; internal and external influences on the management of information and knowledge; various information flows; information management in a variety of settings.

IM01	Ping Wang Class time/details on ELMs	Seats (Total: 30) ONLINE

INFM603 **Information Technology and Organizational Context**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must not have completed LBSC671 or LBSC690; and permission of INFO-College of Information Studies.

Application of communication and information technologies to support work processes, including technology-enhanced communication networks, computer-supported collaborative work, decision-support systems, interactive systems, and systems analysis. Acquisition of information systems and their integration into the organization.

IM01	Douglas Oard W 6:00pm - 8:45pm	Seats (Total: 30) IRB 2107

INFM620 **Introduction to Strategic Information Management**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM612; or LBSC631; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Strategic management is the comprehensive collection of tasks, activities, and processes organizations use to coordinate and align resources and actions with its mission, vision, and strategy. Due to changes occurring in our global landscape, the integration of business and technology is compelling organizations to move beyond traditional, reactive, and silo-based data management approaches to a managed, predictive approach that treats information as a strategic asset and uses it to create business value. To meet challenges of this hyper-competitive environment, this course will provide you with an introduction to the strategic management of information assets for competitive differentiation and sustained business success.

IM01	Ping Wang	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INFM700 **Information Architecture**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles and techniques of information organization and architecture for the Web environment. Structured description of digital resources, including data modeling techniques, metadata schemes, and user-oriented navigation systems.

IM01	Donal Heidenblad	Seats (Total: 40)
	M 4:45pm - 7:45pm	BPS 0283

INFM719 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular

Intensive individual study under faculty supervision.

Contact department for information to register for this course.

INFM737 **Information Management Capstone Experience**

Credits: 3 Grading Method: Sat-Fail

Prerequisite: INFM736; and must have earned a minimum of 27 credits in the MIM Program. Or permission of instructor. Restriction: Must be in Information Management (Master's) program; and permission of INFO-College of Information Studies.

The Information Management Capstone Experience I and II are the culminating experience of the Master of Information Management program, taken in the students final two semesters. The capstone experience provide students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their MIM course work while working in a real world Information Management project. These courses must be taken in succession.

IM01	David Loshin	Seats (Total: 40)
	Th 2:00pm - 4:45pm	ASY 3207

INST Information Studies Fall 2022

INST101 **Bits and Bytes of Computer and Information Sciences**

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: For first time freshmen and first time transfer students. Cross-listed with: CMSC100. Credit only granted for: CMSC100 or INST101.

Students are introduced to the fields (and disciplines) of computer science and information science within a small classroom setting. They will learn to make a successful transition from high school to the university, while exploring study skills, student success plans and research opportunities.

0101	Madeline Georgevich M 1:00pm - 1:50pm	Seats (Total: 40) IRB 1207
0201	Charlotte Avery F 11:00am - 11:50am	Seats (Total: 40) IRB 2207
0301	Maggie Loughlin Th 4:00pm - 4:50pm	Seats (Total: 40) IRB 2207

INST104 **Design Across Campus**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

What is design, who does it, and how is it done? There is no one answer to this question--it depends on who you ask. The answers to these questions vary across disciplines and across the University campus. This course, designed with modules from contributors in UMD programs including Information Studies, Human-Computer Interaction, Graphic Design, Immersive Media Arts, Journalism, Architecture, Landscape Architecture, Engineering, and Policy, will introduce students to the goals and values, approaches, skills, and practices of diverse fields of design. It will enable students to identify grand challenges in design and serve as a sorting hat to help students find a design practice that matches their own values, approaches, skills and goals.

0101	Katie Shilton Tu 2:00pm - 4:45pm	Seats (Total: 50) ONLINE

INST123 **Databases for All**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Must not have completed or be currently taking INST327 or BMGT402.

An introduction to relational databases for students with no previous programming experience. Provides a means for students of diverse backgrounds to successfully learn how to store, retrieve, and maintain data in relational databases. Topics include a brief comparison of database systems with an emphasis on relational databases, fundamental relational database concepts, and data types. Includes technical approaches to accessing information stored in relational databases.

0101	Vedat Diker, Pamela Duffy Tu 12:30pm - 1:45pm Th 2:00pm - 3:15pm	Seats (Total: 49) ESJ 2204 HBK 0103	Discussion
0102	Vedat Diker, Pamela Duffy Tu 12:30pm - 1:45pm Th 3:00pm - 4:15pm	Seats (Total: 48) ESJ 2204 ITV 1100	Discussion
0103	Pamela Duffy, Vedat Diker Tu 12:30pm - 1:45pm Th 4:00pm - 5:15pm	Seats (Total: 50) ESJ 2204 TYD 0102	Discussion

INST126 Introduction to Programming for Information Science

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Math placement of STAT100 or higher. Restriction: Must not have completed INST326; and must be in Information Science, Technology and Information Design, or Social Data Science programs.

An introduction to computer programming for students with very limited or no previous programming experience. Topics include fundamental programming concepts such as variables, data types, assignments, arrays, conditionals, loops, functions, and I/O operations.

0101	Carrie Lindeman Class time/details on ELMs	Seats (Total: 75) ONLINE	
0102	Giovanni Luca Ciampaglia TuTh 9:30am - 10:45am	Seats (Total: 60) CCC 1205	
0103	Anukriti Singh TuTh 3:30pm - 4:45pm	Seats (Total: 50) ONLINE	
0104	P Kshetry Class time/details on ELMs	Seats (Total: 60) ONLINE	

INST151 Becoming A Social Media Influencer

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Credit only granted for: INST408N or INST151. Formerly: INST408N.

Teaches students how to create, grow, and manage influential social media accounts. Topics will include tools for content creation, analyzing and strategizing with analytics, building community, and defining their niche and approach.

0101	Jennifer Golbeck	Seats (Total: 100)
	Class time/details on ELMs	ONLINE

INST152 **"Fake Checking": Battling Misinformation and Disinformation in the Real World**

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSSP

Examining the phenomenon of "fake news" using the principles of information literacy, students will develop their skills in locating, analyzing, and evaluating different information sources -- in the classroom, in their personal lives, and in the workplace.

0101	Ursula Gorham-Oscilowski	Seats (Total: 150)
	TuTh 3:30pm - 4:45pm	ESJ 1224

INST153 **Records Scandals & Data Vandals: Public & Private Sector Controversies Ripped From The Headlines**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Expressly organized around case studies involving well-known individuals and organizations involved in controversies that have generated scandals and controversies around the world. It places these events in a larger historical, legal, technological, ethical and societal context. Drawing upon contemporaneous records in a variety of media, as well as presentations from invited speakers representing the greater archival, historical, and public interest communities, the course seeks to deepen students' appreciation of the role that records and information plays in issues going to the heart of government transparency, corporate accountability, and social justice.

0101	Jason Baron	Seats (Total: 100)
	Tu 2:00pm - 3:15pm	ONLINE
	Class time/details on ELMs	ONLINE

INST154 **Apollo at 50**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS, SCIS

Examines Apollo mission, one of the greatest engineering accomplishments of all time, in which Neil Armstrong walked on the moon. Since the mission, people have asked: if we can land on the moon, why can't we eliminate poverty? Why can't we cure cancer? Why can't we prevent global warming? Asks what were the social, political, financial, scientific, engineering, operational, and human aspects of the Apollo program that came together to make the moon landings possible?

0101	Douglas Oard TuTh 5:00pm - 6:15pm	Seats (Total: 78) IRB 1116	

INST155 **Social Networking**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: INFM289I or INST155. Formerly: INFM289I.

Introduces methods for analyzing and understanding how people use social media - social networking websites, blogging and microblogging, and other forms of online interaction and content generation - and their societal implications. Introduces students to the science and social science of network analysis. Through real world examples, including analysis of their own social networks, students develop skills for describing and understanding the patterns and usage of services like Facebook, Twitter, YouTube, and others.

0101	Jennifer Golbeck Class time/details on ELMs	Seats (Total: 150) ONLINE	

INST201 **Introduction to Information Science**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSHS

Credit only granted for: INST201 or INST301. Formerly: INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

0101	M Sauter MWF 11:00am - 11:50am	Seats (Total: 100) PLS 1140	
0102	M Sauter Class time/details on ELMs	Seats (Total: 100) ONLINE	
0103	M Sauter Class time/details on ELMs	Seats (Total: 100) ONLINE	
0104	Christopher Dempwolf Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Courtney Douglass MW 2:00pm - 2:50pm F 9:00am - 9:50am	Seats (Total: 34) CHE 2110 HBK 0302H	Discussion

0202	Courtney Douglass MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 30) CHE 2110 HBK 0103	Discussion
0203	Courtney Douglass MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 30) CHE 2110 HBK 0103	Discussion
FC01	Elizabeth Bonsignore TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) MCB 1207	

INST204 **Designing Fair Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: INST208D or INST204. Formerly: INST208D.

Reviews how specific values are built into different automated decision-making systems as an inevitable result of constructing mechanisms meant to produce specific outcomes. These values create differential outcomes for the different people enmeshed in these systems, but both these values and these systems can be changed to support different values and different outcomes. The class serves as an introduction to the emerging field of algorithmic bias that bridges the disciplines of information science, computer science, law, policy, philosophy, sociology, urban planning, and others.

0101	Daniel Greene TuTh 2:00pm - 3:15pm	Seats (Total: 45) SPH 1301	

INST210 **The Nuts & Bolts of Getting Hired**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: INST208C or INST210. Formerly: INST208C.

Have you thought about finding an internship, getting a job, or starting your career? Perhaps you're confused about how to begin. Welcome to The Nuts and Bolts of Getting Hired, where you'll learn the skills necessary to develop your professional tool kit and obtain the internship or job that can help you build the career you want. This course will help you prepare for the next step in your career by exploring the following topics: Identifying your career goals, mastering the skills of crafting a professional resume, effective interviewing, strategic networking, and professional communication.

0101	Katy Lawley Class time/details on ELMs	Seats (Total: 40) ONLINE	

INST227 **Fundamentals of Academic Peer Mentoring in Information Studies**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of the College of Information Studies.

Students will be exposed to scholarship of teaching and learning in support of developing applied skills to support active learning as an iSchool academic peer mentor. Students will learn to effectively coach and support the performance of other people. Guided online and face-to-face participation will culminate in a portfolio of teaching activities and professional development.

0101	Pamela Duffy M 3:00pm - 3:50pm	Seats (Total: 50) ONLINE

INST228 **Academic Peer Mentor Experience in Information Science**

Credits: 1-3

Grading Method: Regular, Pass-Fail

Students who are participating in instructional activities for undergraduate courses offered by the College of Information Studies, or by faculty members of the College through other units, can take this course to earn course credit for their AMP work.

0123	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0126	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0311	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)
0326	Aric Bills, Pamela Duffy Contact instructor or department for details.	Seats (Total: 15)
0327	Vedat Diker, Pamela Duffy Contact instructor or department for details.	Seats (Total: 15)
0362	Pamela Duffy, Stacy Surla Contact instructor or department for details.	Seats (Total: 15)
0447	Nekabari Sigalo, Pamela Duffy Contact instructor or department for details.	Seats (Total: 15)

INST232C **Health Justice: Investigating the Roles of Information in Preventing & Addressing Health Disparities**

Credits: 3 Grading Method: Regular General Education: DSHS, DSSP, SCIS

Restriction: Must be a student in the Health Justice Carillon Community.

Does every individual have a fair shot at living a long and healthy life? What are the roles that information plays in creating and intensifying health disparities? How can we harness information to prevent and address health disparities? In this course, we explore health justice: the conviction and enactment of the idea that every person is morally entitled to a fair and sufficient capability to be healthy. We especially focus on the ways in which information-related factors, such as people's access to health information, their strategies for seeking (or avoiding) health information, and their health and digital health literacy, contribute to health (in)justice. Our goal in this class is to promote health justice for all by identify information-related solutions that will help to facilitate people's access to health information and improve their abilities to find, assess, and make use of information to optimize their own and others' health.

0101	Beth St Jean	Seats (Total: 45)
	TuTh 11:00am - 12:15pm	ANS 0412

INST301 **Introduction to Information Science**

Credits: 3 Grading Method: Regular, Audit General Education: DSHS

Restriction: Must be in Information Science program; and restricted to students in the Information Science Program on the Universities at Shady Grove campus. Credit only granted for: INST201 or INST301.

Examining the effects of new information technologies on how we conduct business, interact with friends, and go through our daily lives. Understanding how technical and social factors have influenced the evolution of information society. Evaluating the transformative power of information in education, policy, and entertainment, and the dark side of these changes.

ESG1	Ryan O'Grady	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program.	

INST309 **Independent Study in Information Science**

(Perm req)

Credits: 1-3 Grading Method: Regular

Individual independent study of an aspect of information science, selected according to student interest and need in consultation with a member of the iSchool faculty. Repeatable to 6 credits if content differs.

Contact department for information to register for this course.

INST311 **Information Organization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science program.

Examines the theories, concepts, and principles of information, information representation and organization, record structures, description, and classification. Topics to be covered in this course include the methods and strategies to develop systems for storage, organization, and retrieval of information in a variety of organizational and institutional settings, as well as policy, ethical, and social implications of these systems.

0101	Ryan O'Grady Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 34) ONLINE HBK 0105	Discussion
0102	Ryan O'Grady Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 33) ONLINE HBK 0105	Discussion
0103	Ryan O'Grady Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 33) ONLINE HBK 0105	Discussion
0104	Ryan O'Grady Class time/details on ELMs	Seats (Total: 75) ONLINE	
0105	Ryan O'Grady Class time/details on ELMs	Seats (Total: 50) ONLINE	
0201	Ryan O'Grady Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 34) ONLINE HBK 0103	Discussion
0202	Ryan O'Grady Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 33) ONLINE HBK 0103	Discussion
0203	Ryan O'Grady Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 33) ONLINE HBK 0103	Discussion
ESG1	Galina Madjaroff W 9:30am - 12:15pm *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 60) BLD4 G201	

INST314 **Statistics for Information Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100, and MATH115 (or higher). Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Basic concepts in statistics including measure construction, data exploration, hypothesis development, hypothesis testing, pattern identification, and statistical analysis. The course also provides an overview of commonly used data manipulation and analytic tools. Through homework assignments, projects, and in-class activities, you will practice working with these techniques and tools to create information resources that can be used in individual and organizational decision-making and problem-solving.

0101	Babak Fotouhi Class time/details on ELMs Th 2:30pm - 3:45pm	Seats (Total: 39) ONLINE HBK 0109	Discussion
0102	Babak Fotouhi Class time/details on ELMs Th 4:00pm - 5:15pm	Seats (Total: 38) ONLINE HBK 0109	Discussion
0103	Babak Fotouhi Class time/details on ELMs Th 5:30pm - 6:45pm	Seats (Total: 38) ONLINE HBK 0109	Discussion
0104	Matthew Patrick Class time/details on ELMs	Seats (Total: 60) ONLINE	
0201	Eric Newburger MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 39) JMP 3201 HBK 0109	Discussion
0202	Eric Newburger MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 38) JMP 3201 HBK 0109	Discussion
0203	Eric Newburger MW 2:00pm - 2:50pm F 4:00pm - 4:50pm	Seats (Total: 38) JMP 3201 HBK 0109	Discussion

ESG1	Samantha Kemper Tu 8:00am - 9:30am Class time/details on ELMs	Seats (Total: 55) ONLINE ONLINE

Restricted to students in the BSIS @ USG Program.

INST326 Object-Oriented Programming for Information Science

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program.

An introduction to programming, emphasizing understanding and implementation of applications using object-oriented techniques. Topics to be covered include program design and testing as well as implementation of programs.

Students who wish to register should contact the College of Information Studies.

0101	Aric Bills MW 9:30am - 10:45am	Seats (Total: 70) SPH 1303
0102	Aric Bills MWF 1:00pm - 1:50pm	Seats (Total: 50) JMP 3201
0103	Matthew Patrick Class time/details on ELMs	Seats (Total: 70) ONLINE
ESG1	William Farmer Th 8:00am - 10:00am Class time/details on ELMs	Seats (Total: 60) BLD4 1308 ONLINE

Restricted to students in the BSIS @ USG Program.

INST327 Database Design and Modeling

Credits: 3 Grading Method: Regular, Audit General Education: DSSP

Prerequisite: Minimum grade of C- in INST126 or GEOG276. Restriction: Must be in Information Science or Social Data Science program. Credit only granted for: INST327 or BMGT402.

Introduction to databases, the relational model, entity-relationship diagrams, user-oriented database design and normalization, and Structured Query Language (SQL). Through labs, tests, and a project, students develop both theoretical and practical knowledge of relational database systems.

Students who wish to register should contact the College of Information Studies.

0101	Pamela Duffy, Vedat Diker W 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 40) BPS 1250 ONLINE HBK 0302H	Discussion
0102	Pamela Duffy, Vedat Diker W 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 40) BPS 1250 ONLINE HBK 0302H	Discussion
0103	Pamela Duffy, Vedat Diker W 10:00am - 10:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 40) BPS 1250 ONLINE HBK 0302H	Discussion
0201	Vedat Diker, Pamela Duffy Th 11:00am - 11:50am Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 40) ATL 2324 ONLINE HBK 0302H	Discussion
0202	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 40) ATL 2324 ONLINE HBK 0302H	Discussion
0203	Pamela Duffy, Vedat Diker Th 11:00am - 11:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 40) ATL 2324 ONLINE HBK 0302H	Discussion

INST335 **Organizations, Management and Teamwork**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in PSYC100. Restriction: Must be in Information Science program.

Examines principles, methods and types of leadership with an emphasis on goal setting, motivation, problem solving, and conflict resolution. Examines principles of developing teams and managing team projects through planning and execution, including estimating costs, managing risks, scheduling, staff and resource allocation, communication, tracking, and control. Trains students to recognize and capitalize on opportunities to use information to increase efficiency, improve performance, and support innovation within teams and organizations. Focuses on strategic use of emerging technologies and new information resources to execute information-enabled change.

Students who wish to register should contact the College of Information Studies.

0101	LaRia Rogers Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 34) ONLINE HBK 0115	Discussion
0102	LaRia Rogers Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 33) ONLINE HBK 0115	Discussion
0103	LaRia Rogers Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 33) ONLINE HBK 0115	Discussion
0104	Katy Lawley TuTh 2:00pm - 3:15pm	Seats (Total: 100) BPS 1250	Discussion
ESG1	Galina Madjaroff M 9:30am - 12:15pm *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 50) BLD4 4308	
ESG2	Galina Madjaroff Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 40) ONLINE	

INST341 **Introduction to Digital Curation**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores various dimensions and contexts for digital curation, which includes all activities involving the management, representation and preservation of both born-digital and digitized information. Focuses on opportunities, challenges and demands of every-increasing digital data and networked information infrastructure.

0101	Travis Wagner TuTh 3:30pm - 4:45pm	Seats (Total: 50) HBK 0115	

INST346 **Technologies, Infrastructure and Architecture**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and 1 course with a minimum grade of C- from (INST326, CMSC131); and minimum grade of C- in INST327. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies. Credit only granted for: INST346 or BMGT405.

Examines the basic concepts of computer hardware, systems software, networking, client/server architectures, cloud computing, distributed systems, and high performance computing as applied to information rich domains. Technology and architectures will be discussed within the contexts of solving social issues, supportingscience, and conducting business operations. Current computing topics such as web environments, IoT, security, management, and policy will also be reviewed.

Students who wish to register should contact the College of Information Studies.

0101	Dennis Frezzo TuTh 3:30pm - 4:45pm	Seats (Total: 60) EGR 1108
0102	Dennis Frezzo Class time/details on ELMs	Seats (Total: 60) ONLINE
0103	Donal Heidenblad TuTh 12:30pm - 1:45pm	Seats (Total: 60) PLS 1130
0104	Donal Heidenblad MW 9:00am - 10:15am	Seats (Total: 50) CCC 1111
ESG1	Dennis Frezzo Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 54) ONLINE

INST352 **Information User Needs and Assessment**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- in INST311. Restriction: Must be in Technology and Information Design or Information Science programs.

Focuses on use of information by individuals, including the theories, concepts, and principles of information, information behavior and mental models. Methods for determining information behavior and user needs, including accessibility issues will be examined and strategies for using information technology to support individual users and their specific needs will be explored.

0101	Courtney Douglass Class time/details on ELMs	Seats (Total: 60) ONLINE

0102	Tamara Clegg MWF 12:00pm - 12:50pm	Seats (Total: 50) MCB 1207
0103	Agnes Joseph Class time/details on ELMs	Seats (Total: 60) ONLINE
0104	Ana Ndumu Class time/details on ELMs	Seats (Total: 60) ONLINE

INST354 **Decision-Making for Information Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST314, MATH115, STAT100, and PSYC100. Restriction: Must be in Information Science program.

Examines the use of information in organizational and individual decision-making, including the roles of information professionals and information systems in informed decision-making through techniques such as data analysis and regression, optimization, sensitivity analysis, decision trees, risk analysis and business simulation models.

Students who wish to register should contact the College of Information Studies.

0101	Mohammad Ali Class time/details on ELMs	Seats (Total: 80) ONLINE
0102	Abdirisak Mohamed Class time/details on ELMs	Seats (Total: 75) ONLINE

INST362 **User-Centered Design**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of a C- in INST201 or INST301; and minimum grade of C- in PSYC100 or SOCY105; and minimum grade of C- in INST326 and STAT100. Restriction: Must be in Technology and Information Design or Information Science programs.

Introduction to human-computer interaction (HCI), with a focus on how HCI connects psychology, information systems, computer science, and human factors. User-centered design and user interface implementation methods discussed include identifying user needs, understanding user behaviors, envisioning interfaces, and utilizing prototyping tools, with an emphasis on incorporating people in the design process from initial field observations to summative usability testing.

Students who wish to register should contact the College of Information Studies.

0101	Dennis Frezzo Class time/details on ELMs	Seats (Total: 60) ONLINE
0102	Heera Lee TuTh 11:00am - 12:15pm	Seats (Total: 60) TYD 1101
0103	Ge Gao TuTh 2:00pm - 3:15pm	Seats (Total: 60) CCC 1205
0104	Stacy Surla MW 11:00am - 12:15pm	Seats (Total: 60) ONLINE

INST363 **Fundamentals of Technology Innovation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Technology Innovation Leadership Minor; or permission of INFO-College of Information Studies. Credit only granted for: INST408T or INST363. Formerly: INST408T.

Introduces students to the fundamentals of technology innovation, and how leaders approach innovation in the information science field. The course explores approaches and perspectives on how to develop an individual's capabilities to be better at leading others in an innovative environment. Combining theory and practice, students will be introduced to problem solving and explore ways to become an exceptional innovation leader.

ESG1	Ping Wang Class time/details on ELMs *Restricted to students in the BSIS @ USG Program and the Information Risk Management, Ethics, and Privacy minor*	Seats (Total: 50) ONLINE

INST364 **Human-Centered Cybersecurity**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program.

Cybersecurity is fundamentally a problem of human interaction with technology, but its technical challenges are better understood than its human challenges. This course is designed to give you an overview of human interactions with cybersecurity technology, from users to system designers. Using the information gleaned in this course, you should be able to make better predictions about how people react to cybersecurity policies and tools, and how those reactions shape organizational behavior. The earlier part of the course focuses on explanations for behavior, while the later parts of the course focus more on the development and evaluation of tools for assisting people in cybersecurity.

0101	Susan Campbell TuTh 3:30pm - 4:45pm	Seats (Total: 50) HJP 2242
ESG1	Padric Mylod Th 10:30am - 12:15pm Class time/details on ELMs *Restricted to students in the BSIS @ USG Program.*	Seats (Total: 55) ONLINE ONLINE

INST366 **Privacy, Security and Ethics for Big Data**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in INST126 or GEOG276; and minimum grade of C- in STAT100; and minimum grade of C- in one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100). Restriction: Must be in Technology and Information Design, Information Science, or Social Data Science programs.

Evaluates major privacy and security questions raised by big data, Internet of things (IoT), wearables, ubiquitous sensing, social sharing platforms, and other AI-driven systems. Covers history of research ethics and considers how ethical frameworks can and should be applied to digital data.

0101	Jessica Vitak Class time/details on ELMs	Seats (Total: 100) ONLINE

INST367 **Prototyping and Development Studio**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in PLCY380. Restriction: Must be in the Information Science or Technology and Information Design majors. Credit only granted for: INST398A or INST367. Formerly: INST398A.

Covers interaction design--the process of defining products and the broad services built around them--and user experience research--how you determine what to design and how successful your design is. When interacting with systems, people build expectations and mental models of how things work, based upon their previous experience with similar products or processes, and the successful or unsuccessful nature of their interactions determines the success of your design. This course is about how to design for digital interactions that will resonate with your audiences (how the features and functions of a product get translated into something people find usable, useful, and desirable), and the research that goes on throughout that process (from contextual inquiry to evaluating the final product), with a particular emphasis on prototyping and iteration.

0101	Caro Williams-Pierce Tu 3:00pm - 6:00pm	Seats (Total: 35) CHE 2118

INST377 **Dynamic Web Applications**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST327, STAT100, MATH115, and PSYC100. Restriction: Must be in Information Science program. Credit only granted for: INST377 or BMGT406.

An exploration of the basic methods and tools for developing dynamic, database-driven websites, including acquiring, installing, and running web servers, database servers, and connectability applications.

Students who wish to register should contact the College of Information Studies.

0101	Alex Leitch Class time/details on ELMs Th 11:00am - 12:15pm	Seats (Total: 49) ONLINE HBK 0103
0102	Alex Leitch Class time/details on ELMs Th 5:00pm - 6:15pm	Seats (Total: 50) ONLINE HJP 2242
0103	Alex Leitch Class time/details on ELMs	Seats (Total: 50) ONLINE

INST402 **Designing Patient-Centered Technologies**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- from INST362 or INST367. Restriction: Must be in Technology and Information Design or Information Science programs.

Companies have created a vast array of apps and other technologies for understanding managing personal health and wellness, but many of them have been created with little understanding of audience needs or potential ethical issues. Course introduces students to the unique challenges of studying people's health and wellness needs as well as designing and evaluating technologies to meet those needs.

0101	Rachel Yang Class time/details on ELMs	Seats (Total: 40) ONLINE

INST407 **Leading and Sustaining a Culture of Innovation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Technology Innovation Leadership minor; or permission of INFO-College of Information Studies. Credit only granted for: INST408L or INST407. Formerly: INST408L.

Successful leaders know that the key to value creation and sustained growth lies in innovation -- continuously seeking opportunities to create value whether by launching new products and services, entering new markets, or rethinking key processes. This course will focus on the most efficient leadership strategies, change management, team motivation, technology team management for information management within organizations. We will examine some of the best ways to foster innovative behaviors within a team and organization. Students will engage with a course-long culture change challenge.

ESG1	Brian Hawthorne	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program and the Information Risk Management, Ethics, and Privacy minor	

INST408A **Special Topics in Information Science; Consumer Health Informatics**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information science.

Prerequisite: Minimum grade of C- in INST126, INST201, STAT100, MATH115, and PSYC100.

0101	Beth St Jean	Seats (Total: 40)
	M 2:00pm - 4:45pm	HBK 0115

INST408I **Special Topics in Information Science; Introduction to Cyber Intelligence**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

0101	Kathleen Moore	Seats (Total: 40)	
	MW 6:00pm - 6:50pm	ONLINE	
	Class time/details on ELMs	ONLINE	Discussion

INST408M **Special Topics in Information Science; Managing with Data and Simulations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

0101	Pamela Duffy, Vedat Diker	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	Th 3:30pm - 4:45pm	HBK 0302H

INST408V **Special Topics in Information Science; Visual Design Studio**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected topics in information science.

This is a studio, project-based course primarily aimed at developing foundational, visual language and skills related User Experience Design. The course will offer students room to explore U/X from varied perspectives and design methodologies while introducing them to modern platforms and processes. Students will learn the entire U/X workflow as well as understand where U/X fits in the industry pipeline.

0101	Jason Aston W 2:00pm - 4:45pm	Seats (Total: 25) CCC 1115

INST414 **Data Science Techniques**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in MATH115 (or higher) and STAT100; and a minimum grade of C- from INST126 or GEOG276; and a minimum grade of C- from one of the following (INST201, INST301, or BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201). Recommended: Minimum C- in MATH140 and (INST326, BSOS326, or GEOG376). Restriction: Must be in Information Science or Social Data Science program.

An exploration of how to extract insights from large-scale datasets. The course will cover the complete analytical funnel from data extraction and cleaning to data analysis and insights interpretation and visualization. The data analysis component will focus on techniques in both supervised and unsupervised learning to extract information from datasets. Topics will include clustering, classification, and regression techniques. Through homework assignments, a project, exams and in-class activities, students will practice working with these techniques and tools to extract relevant information from structured and unstructured data.

0101	David Patrick Class time/details on ELMs	Seats (Total: 50) ONLINE
0102	Christopher Dempwolf MW 5:30pm - 6:45pm	Seats (Total: 50) ATL 1113
0103	Zubin Jelveh Class time/details on ELMs Th 5:30pm - 6:45pm	Seats (Total: 50) ONLINE KEY 0103

INST441 **Information Ethics and Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in INST341 or PLCY380. Restriction: Must be in Technology and Information Design or Information Science programs.

Explores via case studies the legal, ethical, and technological challenges in developing and implementing policies for managing digital assets and information. Emphasizes access questions pertinent to managing sensitive information and the roles and responsibilities of information professionals.

0101	Chad Doran	Seats (Total: 60)
	Class time/details on ELMs	ONLINE

INST442 Digital Curation Across Disciplines

Credits: 3 Grading Method: Regular, Audit

Examines how to apply digital curation principles, tools, and strategies in managing diverse data collections and digital information in different disciplinary settings. Explores differences among data curation principles and practices across diverse settings, ranging from scientific organizations (such as business and academic research laboratories and computational science settings), to humanities-based institutions (such as cultural heritage organizations) to social science-based institutions (such as data-intensive professional environments).

0101	Katrina Fenlon	Seats (Total: 50)
	TuTh 11:00am - 12:15pm	SQH 1117

INST447 Data Sources and Manipulation

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in STAT100 and INST327; and a minimum grade of C- from one of the following (INST201, INST301, BSOS233); and a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201); and a minimum grade of C- from one of the following (BSOS331, GEOG273, or INST326). Restriction: Must be in Information Science or Social Data Science program.

Examines approaches to locating, acquiring, manipulating, and disseminating data. Imperfection, biases, and other problems in data are examined, and methods for identifying and correcting such problems are introduced. The course covers other topics such as automated collection of large data sets, and extracting, transforming, and reformatting a variety of data and file types.

0101	Nekabari Sigalo	Seats (Total: 60)
	Class time/details on ELMs	ONLINE
0102	Vikas Sahasrabudhe	Seats (Total: 50)
	Class time/details on ELMs	ONLINE

INST453 **Project Management for Information Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: BMGT485, ENCE320, ENCE325, INST408O or INST453. Formerly: INST408O.

Provides a comprehensive overview of project management, focusing on the needs of information resources (IR). The course covers the concepts and techniques for planning and execution of projects including developing work breakdown structure, estimating costs, managing risks, scheduling, staff and resource allocation, team building, communication, tracking, control, and other aspects of successful project completion.

ESG1	Arjav Shah	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program.	

INST455 **Information Assurance and Compliance**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: INST408U or INST455. Formerly: INST408U.

Examines the protection of organizational data, personalized information, intellectual property and the associated assurance of the data's transfer, storage and communication. Students will understand how to manage these concerns and respond to both emergent and existing threats within the information domain. We will look at the key principles of Information Assurance, compliance and best practices in the real world.

ESG1	Michael Prakhye	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program and the Information Risk Management, Ethics, and Privacy minor	

INST461 **Emerging Technologies and Risk Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: INST408Z or INST461. Formerly: INST408Z.

Focuses on how people and companies can achieve various tangible and intangible benefits and assess risk in using and incorporating emerging technologies (i.e. mobile devices, social media, robotic process automation, 3-D printing, cloud computing, blockchain technologies, artificial intelligence, etc.) into the activities and operations of a company.

ESG1	Arjav Shah	Seats (Total: 50)
	Class time/details on ELMs	ONLINE
	Restricted to students in the BSIS @ USG Program and the Information Risk Management, Ethics, and Privacy minor	

INST462 **Introduction to Data Visualization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in STAT100; minimum grade of a C- from one of the following (INST201, INST301, or BSOS233); minimum grade of C- in INST126 or GEOG276; a minimum grade of C- from one of the following (AASP101, ANTH210, ANTH260, ECON200, ECON201, GEOG202, GVPT170, PSYC100, or SOCY100); and a minimum grade of C- from one of the following (ECON230, GEOG306, GVPT201, INST314, PSYC200, or SOCY201). Restriction: Must be in Information Science or Social Data Science program.

Exploration of the theories, methods, and techniques of visualization of information, including the effects of human perception, the aesthetics of information design, the mechanics of visual display, and the semiotics of iconography.

Students who wish to register should contact the College of Information Studies.

0101	Jason Aston	Seats (Total: 50)
	TuTh 9:30am - 10:45am	SQH 1117
0102	Jesse Klein	Seats (Total: 100)
	Class time/details on ELMs	ONLINE

INST466 **Technology, Culture, and Society**

Credits: 3 Grading Method: Regular, Audit General Education: DVCC

Prerequisite: Minimum grade of C- from INST201 or INST301; and minimum grade of C- from PSYC100 or SOCY105. Restriction: Must be in Technology and Information Design or Information Science programs.

Individual, cultural, and societal outcomes associated with development of information & communication technologies (ICTs), including pro- and anti-social factors. Unpacking how gender, race, ethnicity, sexual orientation, disabilities, and political affiliations affect consumption and production of online experiences. Unpacking how structures of dominance, power and privilege manifest at individual, institutional and cultural levels.

0101	Jesse Klein	Seats (Total: 40)
	TuTh 11:00am - 12:15pm	HBK 0302H

0102	Francesca Polito TuTh 2:00pm - 3:15pm	Seats (Total: 60) ONLINE
0103	Francesca Polito Class time/details on ELMs	Seats (Total: 60) ONLINE

INST490 **Integrated Capstone for Information Science**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 1 course with a minimum grade of C- from (INST201, INST301); and minimum grade of C- in INST126, INST311, INST314, INST326, INST327, INST335, INST346, INST352, INST362, PSYC100, STAT100, and MATH115. Restriction: Must be in Information Science program; and permission of INFO-College of Information Studies.

The capstone provides a platform for Information Science students where they can apply a subset of the concepts, methods, and tools they learn as part of the Information Science program to addressing an information problem or fulfilling an information need.

0101	Andrew Fellows TuTh 12:30pm - 1:45pm	Seats (Total: 40) HJP 2242
0102	Mary Ann Francis M 4:00pm - 5:15pm W 4:00pm - 5:15pm	Seats (Total: 40) ESJ 1309 ESJ 1309
0103	William Kules W 2:00pm - 4:45pm	Seats (Total: 40) HBK 0302H
0104	Timothy Rainsford Th 6:00pm - 8:45pm	Seats (Total: 40) IRB 1207

INST604 **Introduction to Archives and Digital Curation**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC604 or LBSC605.

Overview of the principles, practices, and applications in the archival and digital curation fields.

IM01	Eric Hung Class time/details on ELMs	Seats (Total: 30) ONLINE

IM02	Richard Marciano Tu 2:00pm - 4:45pm Class time/details on ELMs	Seats (Total: 30) HBK 2119 ONLINE

INST607 **Government Information**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM718E, INST607, or LBSC708E. Formerly: INFM718E and LBSC708E.

An introduction to the nature and scope of government information (federal, state, and local). Tracing the ongoing efforts of government agencies to offer information, services, and resources online, this course also examines the nature and current impact of new technologies on participatory democracy. More specifically, the course explores information and communication technologies designed to make government more open and transparent; the design, implementation, and evaluation of new government and governance mechanisms, including through the use of social media and AI; the role of legal authorities and information institutions such as libraries in supporting access to government information; and the development and implementation of selected public facing online tools (e.g., data visualization, crowd-sourcing, etc.).

IM01	Jason Baron Class time/details on ELMs	Seats (Total: 30) ONLINE

INST608Q **Special Topics in Information Studies; Consumer Health Informatics**

Credits: 3 Grading Method: Regular, Audit

Covers special topics in information studies.

In this course, we investigate Consumer Health Informatics and Information Behavior, focusing most heavily on their intersection - Consumer Health Information Behavior. We explore people's health-related information needs and whether, how, and why people seek out and use (or do not seek out and use) health information. We also look at information avoidance, health behaviors, health literacy, digital health literacy, doctor-patient communication, and patient- to-patient communication. Throughout the course, we emphasize the importance of health justice - a world in which everyone has an adequate and equitable capability to be healthy. We will identify populations that experience social injustice and explore information-related factors that contribute to the health inequities they face and the resulting consequences. Our central aim in the course is to conceive of ways to facilitate people's access to health information and their health-related information seeking, and to promote health justice for all.

IM01	Beth St Jean M 2:00pm - 4:45pm	Seats (Total: 10) HBK 0115

INST610 **Information Ethics**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INFM718Q, INST610, or LBSC708I. Formerly: INFM718Q and LBSC708I.

Investigation of the diverse range of ethical challenges facing society in the information age. Ethical theories, including non-Western and feminist theories. Application of theories to information ethics issues.

IM01	Galina Madjaroff	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST613 **Information and Human Rights**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

An examination of information as a human right, including topics: social, cultural, economic, legal, and political forces shaping information rights; the impact of information rights on information professions, standards, and cultural institutions; and information rights and disadvantaged populations.

IM01	Paul Jaeger	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST620 **Diverse Populations, Inclusion, and Information**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC620 OR INST620. Formerly: LBSC620.

Importance of equality of information access. Social, political, and technological barriers to information. Information needs of diverse and underrepresented populations. Principles of inclusive information services.

IM01	Renee Hill	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST627 **Data Analytics for Information Professionals**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Skills and knowledge needed to craft datasets, perform quantitative and qualitative analyses, and develop information resources that bridge the gap between raw data and decision makers' needs.

IM01	Christopher Antoun	Seats (Total: 40)
	Tu 6:00pm - 8:45pm	HBK 2119

INST630 **Introduction to Programming for the Information Professional**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

An introduction to computer programming intended for students with no previous programming experience. Topics include fundamentals of programming and current trends in user interface implementation that are relevant to information professionals.

IM01	Alex Leitch	Seats (Total: 35)
	M 2:00pm - 4:45pm	HBK 0302H

INST631 **Fundamentals of Human-Computer Interaction**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST631 or LBSC795. Formerly: LBSC795.

Principles of human-human and machine-machine communication as a basis for models of human-computer communication. Issues related in input/ output devices, conceptual models, levels of control, metaphor and personification, adaptability, and intensionality/extensionality.

IM01	Jonathan Lazar	Seats (Total: 60)
	Tu 6:00pm - 8:45pm	ESJ 1215

INST639L **Practical Skills in HCI; Accessibility Evaluation Workshop**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

IM01	Rachael Bradley-Montgomery	Seats (Total: 15)
	M 6:00pm - 7:00pm	ONLINE

INST639M **Practical Skills in HCI; Mastering Master's Thesis**

Credits: 1 Grading Method: Sat-Fail, Audit

Current industry practice in the HCI and UX field involves being familiar with many practical skills and specialized software. In this repeatable course, HCIM students will be able to acquire some of these vital practical skills in order to be better prepared for joining industry upon graduation. Furthermore, this will also be an opportunity for students to develop their portfolio for future job hunts. Offered in both Fall and Spring semesters, the intention is for these "practical skills" to be taught by professional instructors with expert knowledge. The content of the course will vary from semester to semester, but here is a sample of topics: Graphic and visual design and communication; UX design and research in games; Voice and gestures; UX mockups and wireframing tools; Practical web design and technologies; UX project management software.

This class will meet on 9/22, 9/29, 10/6, 10/13, 10/20, 10/27, and 11/3. The first and last class meeting will be held in-person. The remaining class meeting dates will be synchronous online. Please see instructor for details.

IM01	Eun Kyoung Choe Th 10:00am - 12:00pm Contact instructor or department for details.	Seats (Total: 15) ONLINE

INST643 **Curation in Cultural Institutions**

Credits: 3 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies.

An overview of the principles, practices, and current debates in the management, care and representation of digital artifacts in libraries, archives, and museums.

IM01	Joseph Sherren W 2:00pm - 4:45pm	Seats (Total: 30) JMZ 0103

INST650 **Facilitating Youth Learning in Formal and Informal Environments**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST650 or LBSC640. Formerly: LBSC640.

The historical, organizational, and contemporary contexts of formal and informal learning spaces; the principles of teaching, learning, and information literacy that underlie the formal and informal learning spaces; and the leadership role that information professionals can play within their schools, libraries and communities.

IM01	Daniel Pauw Class time/details on ELMs	Seats (Total: 30) ONLINE

INST651 **Promoting Rich Learning with Technology**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST651 or LBSC642. Formerly: LBSC642.

Exploration of how technology can be used to promote rich learning experiences, with a particular focus on youth populations. Assessment of the how, when, and why of infusing technology into the teaching and learning process.

IM01	Mega Subramaniam	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

INST661 **Introduction to Game, Entertainment, and Media Analytics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of the instructor.

With the continuing global growth in the Game, Entertainment, and virtual/augmented reality and immersive experiences industries, entertainment providers increasingly depend on data analytics to maintain a competitive edge while continuing to improve the customer experience. This course provides an overview of the Game, Entertainment, and Media (GEM) industries, discuss the relationships between the entertainment providers and the entertainment consumers, and explore the analytical techniques used to maximize the overall value to both the providers and consumers. The course will focus on the uses of analytics methods such as personalization, recommendation, clustering and segmentation, behavioral analytics, etc., will discuss core data management and data architecture concerns, and examine how big data infrastructure can support scalability as data volumes grow and as streaming speeds accelerate. In addition we review socio-technical aspects of entertainment, especially in the areas of cyberpsychology, social networks, and information policy concerns such as privacy protection, fraud, equity, and national security concerns.

IM01	David Loshin	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST682 **Personal Health Informatics & Visualization**

Credits: 3 Grading Method: Regular, Audit

Personal Health Informatics cover a broad concept that encompasses an array of approaches to collect, store, share, analyze, and reflect on personal health data. Not only health care providers are relying on Health Technologies to improve patient care, people are increasingly using health devices and apps in their everyday life. Individuals have started using new technologies to collect data, increase awareness, and reflect on and change their behaviors. They also use various tools for curiosity and fun. This course will provide an overview of this exciting field and examine how social and behavioral theories can be applied to create effective health applications.It is difficult to create health technologies that can successfully be integrated into people's daily life due to many obstacles in individuals' data collection, integration, self-reflection, and sharing practices. Understanding these challenges is an important part of designing Health Technologies. Therefore, this course will cover HCI and design thinking methods that you can leverage in understanding the adoption of Health Technologies. Moreover, visualizations facilitate people to gain insights from their data, so we will cover common visualization approaches used in the personal data contexts.

Jointly offered with CMSC838X. Credit only granted for INST682 or CMSC83 8X.

IM01	Eun Kyoung Choe	Seats (Total: 30)
	Tu 2:00pm - 4:45pm	HBK 0103

INST704 **Inclusive Design in HCI**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST631; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST728Z OR INST704. Formerly: INST728Z.

An introduction to inclusive technology design, that is, the design and evaluation of user interfaces for diverse users and use contexts. Building on basic concepts in human-computer interaction, students will learn about design exclusion and barriers to use, and methods by which these can be overcome. Assistive input and output technologies will also be covered. Populations include older adults, users with visual, cognitive or motor impairments, users who are deaf or hard of hearing, children, users in low resource contexts, and users in mobile contexts. Research trends and practical design considerations (e.g., web accessibility requirements) will be covered. Students will interact with the material through readings, discussion, and individual and group assignments.

IM01	Hernisa Kacorri	Seats (Total: 30)
	Tu 11:00am - 1:45pm	CSI 1121

INST709 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Intensive individual study, reading, or research in an area of specialized interest under faculty supervision. Registration limited to the advanced student with the approval of the advisor and of the faculty member involved.

Contact department for information to register for this course.

INST710 **User Experience Research Methods**

Credits: 3 Grading Method: Regular

Students will learn to conduct user research in industry and to provide foundational knowledge needed for academic research. It examines the theoretical and epistemological differences between research paradigms and provides an overview of qualitative, quantitative and mixed-method approaches. It overviews user-centered design (UCD) methods, and uses Contextual Inquiry/Contextual Design as the backbone for a research project, incorporating related formative UCD methods and techniques. It is a project-based course, where students conduct a semester-long project to prepare them for the HCIM Capstone as well as other types of formative user research.

Restriction: For students in HCIM program only.

IM01	Heera Lee W 6:00pm - 8:45pm	Seats (Total: 40) ATL 1114

INST711 Interaction Design Studio

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Covers basic interaction design principles and design process from a studio-based design perspective. Focuses on how to design for interactions that will resonate with your audiences: how the features and functions of a project get translated into something people find usable, useful, and desirable. Explores the role of interaction designers. Students design and prototype interactive products, systems, and services.

IM01	Alex Leitch Tu 2:00pm - 4:45pm	Seats (Total: 25) HBK 0123

INST728C Special Topics in Information Studies; Advanced Visual Design for Interfaces

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

This studio course gives students a professional, career-ready visual design skill-set by continuing to explore and build off of advanced topics in strategy, concept, artistic direction and execution. Students will combine visual design analysis with business objectives to produce iterative, presentable projects and case studies that reflect the real world processes and results of commercial work

IM01	Jason Aston W 6:00pm - 8:45pm	Seats (Total: 30) HBK 0302H

INST728T Special Topics in Information Studies; Introduction to Museum Scholarship

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

Cross-listed with AMST655, HIST610, INST728T. Credit only granted for: ANTH655, AMST655, HIST610, or INST728T. Provides students a basic understanding of museums as cultural and intellectual institutions. Topics include the historical development of museums, museums as resources for scholarly study, and the museum exhibition as medium for presentation of scholarship.

0101	Diana Marsh Th 2:00pm - 4:40pm	Seats (Total: 20) TWS 0330

INST728W **Special Topics in Information Studies; Managing with Data and Simulations**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

IM01	Pamela Duffy, Vedat Diker Class time/details on ELMs Th 3:30pm - 4:45pm	Seats (Total: 10) ONLINE HBK 0302H

INST728X **Special Topics in Information Studies; Designing Technology with Older People**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

IM01	Amanda Lazar, Galina Madjaroff W 2:00pm - 4:45pm Class time/details on ELMs	Seats (Total: 25) ASY 3221 ONLINE

INST728Y **Special Topics in Information Studies; Futures of Work**

Credits: 3 Grading Method: Regular, Audit

Selected topics in information studies.

IM01	Daniel Greene W 11:00am - 1:45pm	Seats (Total: 40) HBK 0302H

INST735 **Natural Language Processing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: CMSC723, LING723. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Jordan Ying	Seats (Total: 80)
	MW 3:30pm - 4:45pm	IRB 0318

INST737 **Introduction to Data Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST627 and (LBSC690, LBSC671, INFM603, or JOUR652). Restriction: Permission of INFO-College of Information Studies.

An exploration of some of the best and most general approaches to get the most information out of data through clustering, classification, and regression techniques.

IM01	Naeemul Hassan	Seats (Total: 40)
	W 3:00pm - 5:45pm	ONLINE

INST752 **Location Intelligence**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM600, INFM603, INST630, and INST733; or permission of INFO-College of Information Studies.

Provides a comprehensive overview of the principles of geographic information systems and location analytics for a variety of business scenarios. Explores the processes for integrating location information, maps, and demographic information with business information and implementing analytical applications. Reviews business contexts such as government and citizen analysis, zoning and planning, retail site selection, supply chain management and logistics, fieldservice planning and tracking, real estate, insurance, public safety, municipal maintenance, and others. Provides hands-on opportunities to apply location intelligence methods.

IM01	P Kshetry	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST753 **Data Governance and Data Quality**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM600, INFM603, and INST733; or permission of INFO-College of Information Studies.

Surveys the methods and practices for understanding the relationship between organizational performance objectives and their effective oversight, use, and management of information. Examines methods for instituting information governance, data governance, and data quality in the context of information policies for assessing information risk, observing data policies, and enforcing accountability for protection of sensitive information. Explores models of data ownership and accountability, roles and responsibilities for data governance and data stewardship, and processes for soliciting and documenting information and data requirements. Covers techniques for data quality assessment, specification of data quality rules, and applications for validating compliance with data quality expectations, monitoring levels of data quality, and notifications and dashboards for monitoring data compliance.

IM01	Jonathan Adams	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST754 **Data Integration and Preparation for Analytics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INFM600, INST630, and INST733; and (INFM603 or JOUR652) ; or permission of INFO-College of Information Studies.

Provides a comprehensive overview of the end-to-end processes for acquiring, ingesting, managing, cleansing, transforming and integrating data sources for the purposes of reporting andanalytics. Concepts include data acquisition, data streaming, data staging, standardization, data quality, concept and metadata harmonization, transformation, and data modeling. Students will learn how ingested data sets can be transformed, integrated, and prepared for analytical use.

IM01	David Patrick	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

INST760 **Data Visualization**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST630; or INFM603; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: INST760 or INST728V. Formerly: INST728V.

Introduction to the science and technology of data visualization--the graphical representation of data to aid understanding--and includes both theoretical foundations as well as practical applications of integrated visualization techniques on real-world problems. Application of these techniques to state-of-the-art problem domains within research, society, and industry.

IM01	Niklas Elmqvist	Seats (Total: 40)
	Tu 2:00pm - 4:45pm	HBK 0302H

INST771 **Foundations of Cybersecurity**

Credits: 3 Grading Method: Regular, Audit

Explores the foundational concepts of cybersecurity including the Threat Landscape, the evolution and structures of the global telecommunications network, key communication protocols and foundations of networks, the history, culture and emergence of the hacking process, and the core motivations and tactics of threat actors.

IM01	Ido Sivan-Sevilla Class time/details on ELMs Tu 10:00am - 11:30am	Seats (Total: 30) ONLINE ONLINE

INST775 HCIM CAPSTONE PREP

Credits: 3 Grading Method: Regular

Prerequisite: INST631, INST632, and INST717; and must have completed Research Methods; and permission of INFO-College of Information Studies. Or permission of instructor. Restriction: Must be taken in the fall semester of the year in which the student plans to graduate; and permission of INFO-College of Information Studies.

Students will define a project, which requires a high level of background research, rigor in execution and evaluation, and documentation. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

IM01	William Kules, Heera Lee M 6:00pm - 8:45pm Th 2:00pm - 4:45pm	Seats (Total: 25) ESJ 1309 ATL 1434
IM02	William Kules, Heera Lee M 2:00pm - 4:45pm Th 6:00pm - 8:45pm	Seats (Total: 25) ESJ 2309 ATL 1434
IM03	LaRia Rogers Tu 6:00pm - 8:45pm Class time/details on ELMs Th 6:00pm - 8:45pm	Seats (Total: 25) HBK 0302H ONLINE ONLINE

INST776 HCIM CAPSTONE PROJECT

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: INST775; or permission of instructor. Restriction: Must be taken in the semester immediately following completion of INST775 HCIM Capstone Prep; and permission of INFO-College of Information Studies.

The opportunity to apply the skills learned through coursework in a semester-long project applied to a real -world problem. Capstone projects may follow the design, prototyping and evaluation process from end-to-end or may focus on a subset of elements in that process, such as formative study and design.

IM01	Wayne Lutters M 11:00am - 1:45pm Th 2:00pm - 4:45pm	Seats (Total: 10) HBK 0302H HBK 0108

INST779 **Readings Seminar; Readings Seminar**

Credits: 1 Grading Method: Regular

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

Cross-listed with INST828. Credit only granted for INST828 or INSt779.

IM01	M Sauter Th 2:00pm - 2:50pm	Seats (Total: 10) JMZ 1123
	STS Approaches to Economics, Finance, and the Corporation.	

INST782 **Arrangement, Description, and Access for Archives**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC684, LBSC781, LBSC782, or INST782. Formerly: LBSC684, LBSC781, and LBSC782.

Introduction to the key concepts and practices involved with arrangement and description of archives, and the techniques appropriate to enable users to access archival information in traditional and nontraditional archival contexts.

IM01	Eric Hung Class time/details on ELMs	Seats (Total: 30) ONLINE

INST784 **Digital Preservation**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: INST604; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC784 or INST784. Formerly: LBSC784.

Issues and practices regarding digitization of analog materials and preservation of digital materials, both digitized and born digital.

IM01	Chad Doran Class time/details on ELMs	Seats (Total: 30) ONLINE

INST787 **Museum Scholarship Practicum**

(Perm req)

Credits: 3-6 Grading Method: Regular

Prerequisite: AMST856, ANTH856, or HIST810. Restriction: Permission of Museum Scholarship Program required. Cross-listed with: AMST857, ANTH857, HIST811. Credit only granted for: AMST857, ANTH857, HIST811, INST728I or INST787.

Students devise and carry out a research program using the collections at the Smithsonian Institution or some other cooperating museum, working under joint supervision of a museum professional and a university faculty member.

0101	Paul Shackel Contact instructor or department for details.	Seats (Total: 2)
0201	Diana Marsh Contact instructor or department for details.	Seats (Total: 6)
0301	Paul Jaeger Contact instructor or department for details.	Seats (Total: 4)
0401	Mary Sies Contact instructor or department for details.	Seats (Total: 4)
IM01	Paul Jaeger Contact instructor or department for details.	Seats (Total: 4)

INST788A **Special Topics: Collaborative Curation; The 1856 Project**

Credits: 3 Grading Method: Regular, Audit

This seminar considers the history of curation and curators within the institutional setting of museums and offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years.

Cross-listed with AMST659A, ANTH659A, and HIST688A. Credit only granted for AMST659, ANTH659A, HIST688A, or INST788A. Prerequisite: AMST655/ANTH655/HIST610. Recommended: AMST856/ANTH856/HIST810, AMST857/ANTH857/HIST811. Restriction: By permission only. Students enrolled in the MSMC (Museum Scholarship and Material Culture) certificate program will be given priority for enrollment. This seminar not only considers the history of curation and curators within the institutional setting of museums, it offers participants the opportunity, and challenge, to engage in curatorial practice by planning an exhibition that focuses on a critical aspect of life at and around the University of Maryland over the years. The initial run of this course will focus on the 1856 project at the University of Maryland, which focuses on three main areas of Black Life at and around the University of Maryland - Slavery and the Building of the Campus; Civil Rights, Black Student Activism, and the University; and the Relationship of the University to its Black Neighbors.

0101	Henry Gregory M 7:00pm - 9:40pm	Seats (Total: 15) ASY 4213A

INST799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

INST800 **The Engaged Intellectual: An Introduction to Research and Academic Work**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies; and restricted to students in Ph.D. in Information Studies (INFS) program.

An introduction to the academic life with a particular focus on what it means to undertake research, teaching, and service.

Restricted to Doctoral Students.

0101	Vanessa Frias-Martinez W 2:00pm - 4:45pm	Seats (Total: 20) HBK 2119

INST801 **Theoretical and Epistemological Foundations in Information Studies**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: INST888 or INST801. Formerly: INST888.

Pursuing a doctorate in information studies involves the scholarly examination of the interaction between people, information, technology, and society. There are, however, as many ways to examine the interaction of people, information, technology, and society as there are researchers and ways of understanding what counts as evidence and knowledge in different components of the field. Students will be introduced to the diverse scholarly traditions that comprise information studies. Students will explore why there are so many ways of knowing and methods of discovery within the field, in order to help them identify the social theory and methods that will support their path through information scholarship.

0101	Joel Chan M 6:00pm - 8:45pm	Seats (Total: 20) HBK 0302H

INST808 **Seminar in Research Methods and Data Analysis**

Credits: 3 Grading Method: Regular, Audit

Topics and issues in information studies research. Design and conduct of research project.

0101	Jennifer Golbeck Class time/details on ELMs	Seats (Total: 20) ONLINE
0102	Jessica Vitak Th 6:00pm - 8:45pm	Seats (Total: 20) HBK 0302H

INST809 **Individualized Teaching Experience**

Credits: 3-5 Grading Method: Regular, Audit

Introduction to the techniques and challenges associated with design, delivery, and evaluation of couses offered at the University level. The doctoral student will work one-on-one with a faculty member in the development and co-teaching of a graduate level course.

0110	Hernisa Kacorri Class time/details on ELMs	Seats (Total: 1) ONLINE
0247	Mega Subramaniam Contact instructor or department for details.	Seats (Total: 5)

INST811 **Pedagogy and Curriculum Development**

Credits: 3 Grading Method: Regular, Audit

In this course, doctoral students will gradually and iteratively build a syllabus for an original course related to Information Studies. The course will cover, in sequence: curriculum models and development; learning outcome development; syllabus development; classroom management and dynamics; design of student assessments; design and delivery of classroom lectures; discussion moderation; working with teaching assistants; hybrid and online pedagogy; learning outcomes assessment; course evaluations; and teaching statements. Upon completion of the course, students will have a fully developed teaching portfolio.

0101	Katherine Izsak	Seats (Total: 20)
	W 2:00pm - 4:45pm	ONLINE

INST818 **Individual Research Experience**

Credits: 1-3 Grading Method: Regular, Audit

Pre-candidacy individual research experience directed by a faculty member.

Contact department for information to register for this course.

INST828 **Readings Seminar; Readings Seminar**

Credits: 1 Grading Method: Regular, Audit

Readings in emerging topics. Through readings and discussion the class will critically assess future directions and highlight intersection points with other disciplines (e.g., medicine) and sub-disciplines of information studies and computer science (e.g., information retrieval, computer vision, machine learning). One or more themes will be covered over the semester (e.g., inclusive design, health informatics, environmental sustainability, social networking) and will be chosen based on instructor and student interest.

Cross-listed with INST779. Credit only granted for INST828 or INSt779.

IM01	M Sauter	Seats (Total: 10)
	Th 2:00pm - 2:50pm	JMZ 1123
	STS Approaches to Economics, Finance, and the Corporation.	

INST878A **Special Topics in Information Studies; Information Ethics**

Credits: 3 Grading Method: Regular, Audit

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Galina Madjaroff	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST878B **Special Topics in Information Studies; Information and Human Rights**

Credits: 3 Grading Method: Regular, Audit

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Paul Jaeger	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST878C **Special Topics in Information Studies; Diverse Populations, Inclusion, and Information**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Renee Hill	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST878E **Special Topics in Information Studies; Achieving Organizational Excellence**

Credits: 3 Grading Method: Regular, Audit

Seminar topics offered as faculty and student interests warrant. Topic varies.

0101	Instructor: TBA	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

INST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

INST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

ISRL Israel Studies Fall 2022

ISRL249B **Selected Topics in Israel Studies; Storytelling in Israeli Animation and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Cross-listed with TDPS258W, JWST219F, ENGL289F, and CINE298E. Credit only granted for ISRL249B, TDPS258W, JWST219F, ENGL289F, or CINE298E. How short can a story be and still stand as a complete and meaningful creation? In animation, where every second consists of 25 handmade frames, the idea of short is brought to its extreme. Students will explore the structures of short stories and short animation films, with particular attention to Jewish and Israeli examples. Students will observe the basic elements that turn a short occurrence into a story and will practice live storytelling to experiment with different approaches to the narrator's role and the tension between text and image. Special emphasis will be given to the use of narration in animation films.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 1815

ISRL249C **Selected Topics in Israel Studies; Contemporary Israel: History and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL249D **Selected Topics in Israel Studies; Women in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL249E **Selected Topics in Israel Studies; Writing Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present. Future offerings may address history, politics, or culture.

Contact department for information to register for this course.

ISRL283 **The Israeli/Palestinian Conflict: Fundamental Questions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Credit only granted for: ISRL283 or ISRL289I.. Formerly: ISRL289I.

As has become evident virtually every year, the Palestinian-Israeli conflict retains its capacity to mobilize both sides against each other. Why are Palestinian Arabs and Israeli Jews unable to resolve their differences? This course uncovers some of the deeper explanations as to why the conflict persists, even as it changes over the decades.

0101	Paul Scham	Seats (Total: 35)
	MW 2:00pm - 3:15pm	TYD 2109

ISRL329C **Special Topics in Israel Studies; Israel: Politics and Society**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with GVPT368D. Credit only granted for ISRL329C or GVPT368D. This course will address the main issues in Israeli politics and society by focusing on the role of Zionism in the Jewish state, the institutional foundations of Israeli democracy, the main political parties and blocs and their different ideological principles and visions, as well as the main social groups, movements, and institutions that comprise Israeli civil society.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	HJP 2217

ISRL329N **Special Topics in Israel Studies; The United States and Israel: Likely or Unlikely Allies?**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with GVPT368B. Credit only granted for ISRL329N or GVPT368B. An examination of the U.S. - Israel relationship through historical and thematic lenses. Stretching from the pre-state era through the post-Cold War alliance and the intensive U.S. role mediating Arab-Israeli peace, which covers nearly a century of U.S. foreign policy. It will include domestic sources that have shaped U.S. policy, including public opinion, and conclude by examining scenarios for increased cooperation and managing tension in the relationship.

0101	Scott Lasensky	Seats (Total: 35)
	Tu 4:00pm - 6:30pm	TYD 1118

ISRL329P **Special Topics in Israel Studies; Israeli Foreign and Security Policy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Cross-listing with GVPT368E. Credit only granted for ISRL329P or GVPT368E. This course will provide an overview of Israeli foreign and security policy from 1948 to the present. We will examine how Israel's foreign and security policies reflect its Jewish origins, Zionist ideology, its relations with its neighbors and world powers, and its regional quest for recognition and legitimacy.

0101	Ilai Saltzman	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	PLS 1119

ISRL330 **Mizrahi Identity in Israel**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: HIST377, JWST334. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	MW 11:00am - 12:15pm	VMH 1107

ISRL349A **Investigating Topics in Israel Studies; The Psychology of Conflict Resolution**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Contact department for information to register for this course.

ISRL349B **Investigating Topics in Israel Studies; Arab-Israeli Relations**

Credits: 3-6 | Grading Method: Regular, Pass-Fail, Audit

Topics in the study of Zionism and contemporary Israel from the 1880's to the present at an intermediate level. Individual sections may address history, politics, or culture.

Contact department for information to register for this course.

ISRL369C **Special Topics in Study Abroad; Israeli Society in Israeli Cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ISRL372 **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: JWST372. Credit only granted for: JWST319K, ISRL329K, JWST372 or ISRL372. Formerly: JWST319K or ISRL329K.

Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ISRL448M **Seminar in Israel Studies; War and Peace in Israeli Discourse 1967 to the Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Cross-listing with COMM498M. Credit only granted for ISRL448M or COMM498M. This course examines two oppositional discourses in Israel: 1) war discourse, which utilizes various discursive strategies, such as metaphors, lexical choices, and euphemisms, to routinize war; 2) peace discourse: which utilizes conciliatory speech acts, equivocation in diplomatic discourse, recognition discourse, and separation and engagement discourses. We will explore how war and peace discourses impact social consciousness in Israel.

0101	Elie Friedman	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

ISRL448O **Seminar in Israel Studies; History of Palestine in Modern Times**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Intensive study of an Israel Studies topic. Expected work product is a substantial research or analysis paper or appropriate equivalent.

Cross-listed with HIST419I. Credit only granted for HIST419I or ISRL448O. This seminar explores the contested history of Palestine from the 18th century to 1948. Topics covered include the emergence and trajectories of Zionism and Palestinian nationalism, Arab Jews, Palestine s economy, settler colonialism, religiosity and the politics of memory.

0101	Shay Hazkani	Seats (Total: 15)
	TuTh 3:30pm - 4:45pm	KEY 0100

ITAL Italian Fall 2022

ITAL103 **Intensive Elementary Italian**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Not open to fluent/native speakers of Italian. Credit only granted for: ITAL103 or ITAL121.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 20) JMZ 2117 JMZ 2117
0201	Alessandra Gavagni TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 20) JMZ 0118 JMZ 2125
0301	Mirella Vaglio MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 20) JMZ 2117 JMZ 2117

ITAL169C Special Topics in Study Abroad I; Italian Conversation

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169E Special Topics in Study Abroad I; Elementary Italian I

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169F Special Topics in Study Abroad I; The Florence Experience I: Beginning Italian I

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL169R Special Topics in Study Abroad I; Introduction to Italian Language and Culture

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL203 Intensive Intermediate Italian

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: ITAL103; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not have completed ITAL122; and must not be a fluent/native speaker of Italian. Credit only granted for: ITAL203 or ITAL122.

Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

0101	Alessandra Gavagni TuTh 2:00pm - 3:15pm W 2:00pm - 2:50pm	Seats (Total: 20) JMZ 2207 JMZ 2207
0201	Valeria Federici MW 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 20) KEY 0103 JMZ 0122

ITAL204 Advanced Intermediate Italian

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: ITAL203 or equivalent; or must have appropriate Foreign Language Placement Test (FLPT) score.

An intensive study of Italian language and culture. This course completes the sequence of ITAL 103 and 203. After a brief review of important material of Intermediate Italian (ITAL 203), we will cover the last four chapters of Parliamo italiano (Unita 9-12). ITAL 204 is designed to reinforce and deepen the students' knowledge of Italian and its idiomatic usage, and to improve their reading and writing skills through a more in-depth study of more complex grammatical forms. Students are encouraged to practice Italian using grammatical concepts in an active manner. There will be oral and written exercises, short readings, and vocabulary expansion. Special attention will be given to readings, oral comprehension and written compositions. To improve their listening and reading comprehension, students will also view and analyze film clips, and read short articles in newspapers and magazines on current events and global issues pertaining to Italy and the European Union.

0101	Alessandra Gavagni TuTh 3:30pm - 4:45pm	Seats (Total: 20) JMZ 2117

ITAL207 Speaking and Writing in Italian

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: ITAL204; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a fluent/native speaker of Italian.

An intensive upper intermediate language course that focuses on Italian speaking and writing. The course, which is taught entirely in Italian, is designed to reinforce and deepen the students' knowledge of the Italian language and its idiomatic usage, and to improve their speaking ability and listening comprehension. Students will be given practice both in speaking extemporaneously and giving oral reports written on a wide range of topics dealing with contemporary Italy. One of the main objectives of the course is to prepare students to take upper level courses (300-400 levels) in Italian language, literature, and culture

0101	Mirella Vaglio	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	JMZ 1117

ITAL211 **Intermediate Conversation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: ITAL203; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be a fluent/native speaker of Italian.

Practice in spoken Italian based on reading and listening exercises in a variety of genres. Written assignments and exams.

Contact department for information to register for this course.

ITAL269I **Special Topics in Study Abroad II; Intensive Intermediate Italian I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL269R **Special Topics in Study Abroad II; Elementary Italian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL301 **Italian Composition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207; or students who have taken courses with comparable content may contact the department.

Techniques of composition; grammatical analysis; various genres; vocabulary.

Contact department for information to register for this course.

ITAL306 **Commercial Italian I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL301; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to Italian Business language and culture. Special emphasis on communicative strategies used in business transactions and applications. Reading and discussion of relevant articles relating to business world from on-line newspapers and magazines.

Contact department for information to register for this course.

ITAL361 **Survey of Italian Society and Culture: From Fascism to the Seventies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ITAL207.

Development of Italian society and culture from Fascism to the 1970s. Literature, cinema, economy, popular culture, and daily life. Taught in Italian.

0101	Valeria Federici	Seats (Total: 20)
	MWF 11:00am - 11:50am	JMZ 0122

ITAL369C **Special Topics in Study Abroad III; History of Fashion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369F **Special Topics in Study Abroad III; Florence: The Story of the City**

Credits: 3 Grading Method: Regular

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL369W **Special Topics in Study Abroad III; Composition and Style**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

ITAL386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

ITAL399 **Directed Study in Italian**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

Contact department for information to register for this course.

ITAL411 **Monsters and Demons: the Faces of Evil in Dante's Inferno**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

General Education: DSHU

An interdisciplinary study of Dante's Inferno as represented in the Divine Comedy. Special emphasis on Dante's own portrayal of monsters and demons and their roles in the poet's eschatological vision of Hell.Taught in English

Contact department for information to register for this course.

ITAL431 **Italian Civilization in Translation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL431 or ITAL432.

Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. Taught in English.

Contact department for information to register for this course.

ITAL471 **Italian Cinema: A Cultural Approach in Translation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ITAL471 or ITAL472.

The culture of Italy through the medium of film from the silent days up to the present. Taught in English.

Contact department for information to register for this course.

ITAL478B **Colloquium in Italian; Italian Black Writers in Translation**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corequisite: ITAL498B.

0101	Valeria Federici	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL478M **Colloquium in Italian; The Mafia: From Corleone to Hollywood**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Colloquium section taught in Italian to accompany 400-level Italian courses taught in English. Discussion, presentations, readings.

Corequisite: ITAL499M.

0101	Mauro Resmini	Seats (Total: 5)
	Contact instructor or department for details.	

ITAL498B **Special Topics in Italian Literature; Italian Black Writers in Translation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

The landscape of contemporary Italian literature has been reshaped and reconfigured by the emergence of new voices and new authors who are redefining what it means to be Italian today. This course explores recent novels, autobiographical counts, short stories, comics, articles, and multimedia materials through which authors such as Gabriella Kuruvilla, Ingy Mubiayi, Igiaba Scego, Nadeesha Uyangoda, Esperance Hakuzwimana Ripanti, and others, reflect on themes of identity, post-colonialism, inclusivity, Black Italy as well as on "the right to imagination" for new generations of Italians. Taught in English. This course has a Colloquium in Italian.

0101	Valeria Federici	Seats (Total: 25)
	MWF 1:00pm - 1:50pm	JMZ 2122

ITAL499 **Special Topics in Italian Studies**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ITAL499M **Special Topics in Italian Studies; The Mafia: From Corleone to Hollywood**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with CINE429R. Credit only granted for ITAL499M, CINE429R, or FILM329R.

0101	Mauro Resmini	Seats (Total: 25)
	MW 3:30pm - 4:45pm	JMZ 1122

ITAL499T **Special Topics in Italian Studies; Italian Cities: History through Urban Form**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

ITAL499V **Special Topics in Italian Studies; Italian Comedy on Stage and Screen**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JAPN101 **Elementary Japanese I**

Credits: 6 Grading Method: Regular

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score.

Introduction to basic patterns of contemporary spoken Japanese and to the two phonetic syllabaries (Katakana and Hiragana).

0101	Makiko Inoue, Takehiro Iizuka MWF 10:00am - 10:50am TuTh 9:30am - 10:45am	Seats (Total: 15) JMZ 0120 JMZ 0120
0201	Makiko Inoue, Takehiro Iizuka MWF 11:00am - 11:50am TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 0120 JMZ 0120
0301	Makiko Inoue, Takehiro Iizuka MWF 2:00pm - 2:50pm TuTh 2:00pm - 3:15pm	Seats (Total: 15) JMZ 0120 JMZ 0120

JAPN201 **Intermediate Japanese I**

Credits: 6 Grading Method: Regular CORE: HO

Prerequisite: Minimum grade of C- in JAPN102; or or appropriate Foreign Language Placement Test (FLPT) score.

Contemporary spoken and written Japanese.

0101	Kumiko Akikawa MWF 11:00am - 12:50pm	Seats (Total: 15) JMZ 1215
0201	Kumiko Akikawa MWF 1:00pm - 2:50pm	Seats (Total: 15) JMZ 1226

JAPN301 **Advanced Japanese I**

Credits: 6 Grading Method: Regular

Prerequisite: Minimum grade of C- in JAPN202; or permission of instructor.

Advanced conversation, oral comprehension, and selected readings.

0101	Mari Prendergast MWF 10:00am - 11:50am	Seats (Total: 15) JMZ 3122

0201	Mari Prendergast	Seats (Total: 15)
	MWF 12:00pm - 1:50pm	JMZ 3122

JAPN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have a Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

JAPN401 **Readings in Modern Japanese Literature**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in JAPN302; or permission of instructor.

Development of advanced reading, vocabulary, grammar, and translation skills through selected readings in Japanese drawn primarily from modern literature.

0101	Michele Mason	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 3122

JAPN424 **Japan From the Margins**

Credits: 3 Grading Method: Regular General Education: DVUP

Japan from the Margins takes as its focus the history and representations of various others in Japanese society. They include ethnic Ainu, Okinawans, and Koreans, a historical outcaste group called the Burakumin, and people marginalized for their non-normative gender and sexual practices. Students learn about the historical specificities of each group as well as their common experiences of institutional discrimination as they grapple with larger questions regarding prejudice, nationalism, and social justice. Taught in English.

0101	Michele Mason	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	JMZ 2206

JAPN499 **Directed Study in Japanese**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

JOUR Journalism Fall 2022

JOUR130 **Self-Presentation in the Age of YouTube**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSOC

Credit only granted for: COMM107, COMM200, ENES143, INAG110, JOUR130 or THET285. Additional information: May not count toward the Journalism major.

Students, as they make use of evolving technologies, need to be able to present themselves effectively in front of any number of different audiences through any number of different outlets. Whether in an interview on radio, a guest presentation at a conference, in comments on a video blog, in commentary on TV, in the lead on a self-produced YouTube video, or as spokesperson in front of investors or management, professionals need strong oral communication skills. This class focuses on strengthening those skills through active individual and group presentations, as well as, through discussion of key techniques and group critique of presentation publicly available in the social media space on sites such as YouTube.

0201	George Lanum TuTh 12:30pm - 1:45pm	Seats (Total: 22) KNI 1206
FC01	Amber Moore MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) KNI 1103
FC03	Mark Gray TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) KNI 1103
FC04	Amber Moore MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) KNI 1206
FC05	Mark Gray TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) KNI 1103

JOUR150 **Introduction to Mass Communication**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DSSP

Additional information: Not applicable toward journalism major.

Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.

0101	Sara Browning TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1103
0201	Edward Alwood TuTh 2:00pm - 3:15pm	Seats (Total: 30) KNI 1103

0301	Edward Alwood TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1103
0401	Denitsa Yotova Class time/details on ELMs *This section meets asynchronously.*	Seats (Total: 30) ONLINE
0501	Keegan Clements-Housser Class time/details on ELMs *This section meets asynchronously.*	Seats (Total: 30) ONLINE
0601	Md Mahfuzul Haque MW 9:30am - 10:45am	Seats (Total: 30) KNI 1103
0701	Denitsa Yotova Class time/details on ELMs *This section meets asynchronously.*	Seats (Total: 30) ONLINE

JOUR152 **Introduction to Storytelling with Code**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR200.

An introduction to the ways markup and programming languages and computational thinking are transforming news reporting and storytelling.

0201	Naeemul Hassan **Meets October 17, 2022 - December 12, 2022** F 11:00am - 11:50am Class time/details on ELMs *The first class and the last class meet in-person and the other sessions are asynchronous.*	Seats (Total: 100) ONLINE ONLINE

JOUR175 **Media Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE, D General Education: DSSP, DVUP

Additional information: Not applicable toward journalism major.

An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

0101	Wenyou Ye Tu 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 35) KNI 3202 ONLINE
0102	Ho Wong Th 12:30pm - 1:45pm Class time/details on ELMs	Seats (Total: 35) KNI 3202 ONLINE
0103	Bobbie Foster M 1:30pm - 2:45pm W 1:30pm - 2:45pm	Seats (Total: 35) KNI 1208 ONLINE
0104	Megan Fromm Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	Seats (Total: 35) KNI 3202 ONLINE

JOUR181 **Grammar for Journalists**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: ENGL181, ENGL281, or JOUR181.

The basic grammatical structures of standard American written English and its conventions of punctuation, diction and usage in journalistic writing.

0101	Linda Coleman W 2:00pm - 2:50pm	Seats (Total: 170) ONLINE
FC01	Nicoletta Kern Tu 3:25pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) KNI 1206

JOUR199 **Survey Apprenticeship**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

College-monitored experience in approved mass-communications organizations and industries.

0101	Karen Denny Contact instructor or department for details.	Seats (Total: 40)

JOUR200 **Journalism History, Roles and Structures**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Introduction to the study of journalism from the standpoint of media history and sociology.

0101	Bobbie Foster MW 9:30am - 10:45am	Seats (Total: 30) KNI 1105
0301	Carolina Siqueira Paranhos Velloso TuTh 11:00am - 12:15pm	Seats (Total: 30) KNI 1105
0401	Carole Lee MW 12:30pm - 1:45pm	Seats (Total: 30) KNI 1105
0501	Ira Chinoy TuTh 9:30am - 10:45am	Seats (Total: 30) KNI 1208
0601	Merrilee Cox TuTh 12:30pm - 1:45pm	Seats (Total: 30) KNI 1105
FC01	Carole Lee MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) KNI 1105

JOUR201 **News Writing and Reporting I**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in ENGL101, JOUR181, and JOUR200; and permission of JOUR-Philip Merrill College of Journalism. Restriction: For students intending to be journalism majors; and permission of JOUR-Philip Merrill College of Journalism.

Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills. Students who earned 80% or higher on the JOUR181 diagnostic are exempt from the JOUR181 prerequisite.

0101	Lisa Lambert MW 10:00am - 11:50am	Seats (Total: 18) KNI 1101
0301	Daarel Burnette MW 6:00pm - 7:50pm	Seats (Total: 18) KNI 2105
0501	Constance Ford MW 11:00am - 12:50pm	Seats (Total: 18) KNI 2103

JOUR202 **News Editing**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Copy editing, fact checking, verification and research across media platforms, including social, with consideration of story play and placement, graphic principles, headlines and SEO.

0201	Jodi Friedman MW 9:00am - 10:50am	Seats (Total: 18) KNI 2107

JOUR262 **News Videography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Jointly offered with: JOUR603. Credit only granted for: JOUR262 or JOUR603.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0201	Benjamin Worsley TuTh 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B
0301	Alanna Delfino MW 7:00pm - 8:50pm	Seats (Total: 12) TWS 0222B
0501	Alexander Flum M 12:00pm - 2:45pm	Seats (Total: 12) TWS 0222A

JOUR281 **Media Law and Ethics in the Digital Age**

Credits: 3 Grading Method: Regular General Education: DSHS, SCIS

Credit only granted for: JOUR289E or JOUR281. Formerly: JOUR289E. Additional information: This course is intended for non-journalism majors.

Explores the First Amendment, libel, privacy, FOIA and copyright as they have evolved in the digital news age of bloggers, tweeters and citizen journalists. The course will cover fundamental legal and ethical concepts as well as practical application.

0101	Deborah Nelson Tu 2:00pm - 3:15pm Class time/details on ELMs	Seats (Total: 70) KNI 1208 ONLINE
	Restricted to students in Carillon Communities.	

JOUR282 **Beyond Facebook: How Social Media are Transforming Society, Culture, Business and Politics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, SCIS

Credit only granted for: JOUR289F or JOUR282. Formerly: JOUR289F.

Examining the rise of social media and their impact on culture, business, government, politics, journalism and society, this course provides students with a broad contextual understanding of the multidisciplinary impacts of social media such as Twitter, Facebook and similar Internet-based services.

0101	Robin Sundaramoorthy MW 11:00am - 12:15pm	Seats (Total: 30) KNI 1105
0201	Sarah Oates Class time/details on ELMs	Seats (Total: 70) ONLINE

JOUR283 **Probing War: Investigative Narratives and American Conflicts**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: JOUR283 or JOUR289J. Formerly: JOUR289J.

Students will explore the realities of war through the work of journalists who pushed beyond the daily headlines, some risking life and limb, to challenge official versions and document uncomfortable realities about American conflicts.

0101	Christopher Hanson MW 11:00am - 12:15pm	Seats (Total: 30) KNI 1208

JOUR284 **Scandal: Exposing Corruption, Justice, and Vice in America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: JOUR289P, JOUR284 or HONR239J. Formerly: JOUR289P, HONR239J.

Students will examine the nature and meaning of scandals in society: how they are uncovered and constructed; why some forms of wrongdoing are considered scandalous but not others; how this definition has changed over time; and how scandals resonate in ways that reflect societal norms.

0101	Mark Feldstein MW 9:30am - 10:45am	Seats (Total: 60) KNI 1208

JOUR320 **News Writing and Reporting II: Multiplatform**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR152; and minimum grade of C- in JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation. Due to rigorous publication requirement, plan your schedule accordingly.

0101	John Hughes TuTh 6:00pm - 7:50pm	Seats (Total: 18) KNI 2103
0201	David Lightman TuTh 8:00am - 9:50am	Seats (Total: 18) KNI 2105
0401	Abbie Bennett MW 7:00pm - 8:50pm	Seats (Total: 18) KNI 1101
0601	Clarence Williams TuTh 11:30am - 1:20pm	Seats (Total: 18) KNI 2107
0701	Jerry Zremski TuTh 2:00pm - 3:50pm *The focus of this section will be reporting on education in Maryland and building a collaborative of diverse local news outlets. Students will use tools and lessons from the Solutions Journalism Network. Interested students should contact Assistant Dean Josh Madden (jmadden@umd.edu) forpermission to register*	Seats (Total: 15) KNI 1101

JOUR325 **Capital News Service Bureau**

(Perm req)

Credits: 9 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism.

Advanced journalism training. Students report as part of college's Capital News Service program.

Jointly offered with JOUR625. Students must contact the instructor for permission to register. Washington, DC students should enroll in section 0101. Annapolis students should enroll in section 0201. College Park students should enroll in section 0301 or section 0401, depenging on their bureau.

0101	James Carroll Contact instructor or department for details. *This section meets in the National Press Building, Washington, DC.*	Seats (Total: 9)
0201	Ronald Harris Contact instructor or department for details. *This section meets in the CNS Bureau, Annapolis, MD.*	Seats (Total: 9)
0301	Adam Marton Contact instructor or department for details. *This section meets in the CNS Bureau, College Park, MD.*	Seats (Total: 9)

0401	Alexander Pyles	Seats (Total: 9)
	Contact instructor or department for details.	
	This section meets in the CNS Bureau, College Park, MD.	

JOUR327 **Urban Affairs Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320; and permission of instructor. Jointly offered with JOUR627. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

Students will use Baltimore as a working laboratory to report on urban issues. Course meets in Baltimore for the majority of the semester with a few meetings late in the semester in College Park.

0101	Rob Wells	Seats (Total: 8)
	M 1:45pm - 4:30pm	KNI 1210

JOUR328A **Special Topics in News Writing and Reporting; The Future of the News Industry and How to Reshape It: Mastering the Tools of Transformation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. This class will cover the changing economics of the news industry, its history and its future. It will teach some of the essentials of transformational change management in news and will culminate in students critiquing a gap in a news organization's model and designing a performance challenge plan for that news organization to address that gap through innovation.

0101	Thomas Rosenstiel	Seats (Total: 12)
	W 10:00am - 12:45pm	KNI 3200

JOUR328I **Special Topics in News Writing and Reporting; Turning Your Degree into Multiple Career Options**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: Must have earned at least 60 credits. Whether you love your major or hate it, it doesn't matter. That's because the many skills you're learning in journalism and other humanities majors like -- English, History, Government & Politics, Philosophy, Sociology, etc -- are transferable into countless industries. You'll learn step-by-step how to inventory the most valuable skills you've gained inside and outside the classroom and translate them into tangible job functions that exist in almost any industry you can imagine. From Aeronautics to Architecture, from Hedge Funds to Health Care, from IG & TikTok from Intelligence & Foreign Affairs, this will be a course unlike any other you've taken in college because its sole focus is to help you identify at least three career options you'd be excited to pursue after you graduate and then show you how to use LinkedIn to uncover those jobs and internships.

0101	Andrea Koppel **Meets August 29, 2022 - October 14, 2022** M 12:30pm - 1:20pm Class time/details on ELMs *The first class and the last class meet in-person and the other sessions are asynchronous.*	Seats (Total: 65) KNI 1208 ONLINE
0201	Andrea Koppel **Meets October 17, 2022 - December 12, 2022** M 12:30pm - 1:20pm Class time/details on ELMs *The first class and the last class meet in-person and the other sessions are asynchronous.*	Seats (Total: 65) KNI 1208 ONLINE

JOUR328M **Special Topics in News Writing and Reporting; Sports Betting and College Sports I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. JOUR328M must be taken concurrently with JOUR328N. Legalized sports betting is changing the landscape of sports at every level. The impact on college sports is especially complicated. The National Collegiate Athletic Association bans athletes from betting on sports, professional or college. But on college campuses, the popularity of sports betting is growing rapidly. In this course, students examine and report on the present and future impact of sports betting on colleges from multiple perspectives: University presidents, athletic directors, coaches, athletes and students, among others.

0101	Mark Hyman M 12:30pm - 3:15pm	Seats (Total: 8) KNI 1206

JOUR328N **Special Topics in News Writing and Reporting; Sports Betting and College Sports II**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. JOUR328N must be taken concurrently with JOUR328M. Legalized sports betting is changing the landscape of sports at every level. The impact on college sports is especially complicated. The National Collegiate Athletic Association bans athletes from betting on sports, professional or college. But on college campuses, the popularity of sports betting is growing rapidly. In this course, students examine and report on the present and future impact of sports betting on colleges from multiple perspectives: University presidents, athletic directors, coaches, athletes and students, among others.

0101	Mark Hyman W 12:30pm - 3:15pm	Seats (Total: 8) KNI 1206

JOUR328T **Special Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR352. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton W 12:30pm - 3:15pm	Seats (Total: 10) KNI 2107

JOUR328V **Special Topics in News Writing and Reporting; Covering Comic Book Culture in Entertainment**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR320. Comic book culture's evolving impact in entertainment has been vast and rapidly growing. This course will look at the humble beginnings of comic book culture in entertainment, from the comic books themselves, to the adaptations that have become big business for movies, television, streaming and animation as well as how to write on/cover those moments.

0101	David Betancourt Tu 6:00pm - 8:45pm	Seats (Total: 13) KNI 1105

JOUR328W **Special Topics in News Writing and Reporting; Foreign Reporting from College Park: The Art of Finding and Cultivating Sources Abroad**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite or corequisite: JOUR320. This research and reporting methods course will teach students how to find the right people in the United States and abroad to help them research and write stories about foreign events and about people living overseas, even if you don't speak the language. Students will learn how to find "guides" into a particular culture, how to make contacts almost anywhere and how to discover the network of people overseas that can help a reporter delve deep into one subject. We will also explore the American and foreign officials who can be indispensable for your stories. Students will be assigned to research and write a profile of a person or family in distress overseas; refugees, imprisoned human rights defenders and journalists or people living in conflict zones.

0101	Dana Priest M 2:30pm - 5:15pm	Seats (Total: 14) KNI 3200

JOUR328Z **Special Topics in News Writing and Reporting; Making a Career as a Freelance Journalist**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Advanced training and practice in writing and reporting news.

Prerequisite: JOUR201. Freelancing can give early-career journalists their first big break in the industry. This course will cover the basics of launching a career as a freelance reporter: pitching, setting rates, forming relationships with editors, managing invoices and doing your taxes.

0101	chelsea Cirruzzo **Meets August 29, 2022 - October 14, 2022** M 5:00pm - 7:05pm	Seats (Total: 16) KNI 2103

JOUR334 **Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR360. Credit only granted for: JOUR334, JOUR368L, JOUR668L or JOUR634. Formerly: JOUR368L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. Students will work together to produce a complete radio broadcast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Alanna Delfino, Steven Drummond Tu 5:30pm - 8:15pm	Seats (Total: 8) KNI 1101

JOUR352 **Interactive Design and Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR152; and JOUR201; and must have completed or be concurrently enrolled in JOUR262 or JOUR370. Or permission of JOUR-Philip Merrill College of Journalism. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR652. Credit only granted for: JOUR352 or JOUR652.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools, JavaScript libraries, multimedia and text to create charts, timelines, maps and other forms of nonfiction storytelling.

0201	Stacey Decker M 12:30pm - 2:20pm W 12:30pm - 1:25pm	Seats (Total: 18) KNI 2107 ONLINE	Lab
0301	Kalani Gordon Th 5:30pm - 8:15pm	Seats (Total: 18) ONLINE	
0401	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 15) KNI 1101	
0501	Carl Johnson Tu 10:00am - 12:45pm	Seats (Total: 18) KNI 2105	

JOUR353 **News Bureau: Multimedia Reporting**

(Perm req)

Credits: 6 Grading Method: Regular, Audit General Education: DSSP

Prerequisite: JOUR352; and permission of JOUR-Philip Merrill College of Journalism; and (JOUR320 or JOUR360).

Advanced reporting and writing in an online environment focusing on multimedia, non-traditional storytelling and investigative reporting.

0201	Ronald Harris Contact instructor or department for details. *This section is for students in the Annapolis bureau.*	Seats (Total: 7)
0301	James Carroll Contact instructor or department for details. *This section is for students in the Washington, D.C. bureau.*	Seats (Total: 7)

JOUR355 **News Bureau: Multimedia Editing and Production**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: JOUR320 or JOUR360; and JOUR352; and permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as multimedia and social media editors and producers, building interactive content and special reports.

0101	Adam Marton Contact instructor or department for details.	Seats (Total: 10)
0201	Alexander Pyles Contact instructor or department for details.	Seats (Total: 10)

JOUR357 **Capital News Service Broadcast Immersion**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

0101	Melvin Coffee Contact instructor or department for details.	Seats (Total: 7)

JOUR360 **News Writing and Reporting II: Broadcast**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in JOUR201. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism.

Writing and reporting for broadcast media: production of news stories.

0201	Alison Burns MW 10:00am - 11:50am	Seats (Total: 10) KNI 2105
0301	Stuart Schwartz MW 1:00pm - 2:50pm	Seats (Total: 18) KNI 1101
0401	Elizabeth Feldman TuTh 11:00am - 12:50pm	Seats (Total: 18) KNI 1101

JOUR361 **Television Reporting and Production**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360.

Writing and editing for the broadcast media. Interpretive and documentary news stories.

Due to rigorous fieldwork requirement, plan your schedule accordingly.

0301	Joshua Davidsburg TuTh 12:00pm - 1:50pm	Seats (Total: 9) TWS 0222B	

JOUR362 **Broadcast News Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR262 and JOUR360; and must have completed or be concurrently enrolled in JOUR361.

Producing TV news.

0102	Cindy Wright Tu 7:15pm - 9:15pm Tu 2:00pm - 6:50pm	Seats (Total: 3) TWS 0117 TWS 0117	 Lab
0104	Cindy Wright Tu 7:15pm - 9:15pm Th 2:00pm - 6:50pm	Seats (Total: 3) TWS 0117 TWS 0117	 Lab

JOUR364 **Advanced Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR 334. Jointly offered with: JOUR664.

Students will receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 5) KNI 3210	

JOUR367 **Broadcast News Bureau**

(Perm req)

Credits: 9 Grading Method: Regular, Audit General Education: DSSP

Prerequisite: JOUR361; and permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the college's Capital News Service program.

Jointly offered with JOUR667.

0101	Melvin Coffee	Seats (Total: 15)
	Contact instructor or department for details.	

JOUR368D **Topics in Broadcast and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR320/JOUR360. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to manage a social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media presence.

0101	Alexander Pyles	Seats (Total: 13)
	Th 12:30pm - 1:45pm Class time/details on ELMs	KNI 2105 ONLINE
0201	Brittany Cheng	Seats (Total: 18)
	W 2:00pm - 3:15pm Class time/details on ELMs	KNI 2103 ONLINE

JOUR368I **Topics in Broadcast and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR352. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of storyboarding, scripting and creating motion graphic stories using the Adobe After Effects software.

0101	Krishnan Vasudevan	Seats (Total: 15)	
	M 12:00pm - 1:50pm W 12:00pm - 1:50pm	KNI 2105 KNI 2105	 Lab

JOUR368L **Topics in Broadcast and Electronic Media; Introduction to Studio Production**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 or permission of instructor - nsteven5@umd.edu. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens M 4:00pm - 5:30pm Tu 4:00pm - 6:00pm	Seats (Total: 5) TWS 0117 TWS 0116	 Lab
0102	Nathaniel Stevens M 4:00pm - 5:30pm Th 4:00pm - 6:00pm	Seats (Total: 5) TWS 0117 TWS 0116	 Lab

JOUR368N **Topics in Broadcast and Electronic Media; Advanced Photojournalism**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR370. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay overtime, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen F 9:00am - 11:45am	Seats (Total: 8) KNI 2107	
0201	Nicole Munchel M 3:00pm - 5:45pm	Seats (Total: 14) KNI 1101	

JOUR368X **Topics in Broadcast and Electronic Media; Documentary Filmmaking**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR320/JOUR360. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 2:00pm - 3:50pm	Seats (Total: 8) TWS 0222B

JOUR368Y **Topics in Broadcast and Electronic Media; Sports Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced research, analysis and/or practice of selected topics in broadcast journalism.

Prerequisite: JOUR262 and JOUR360; or JOUR320. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" effectively and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 8) KNI 2103

JOUR370 **Photojournalism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in JOUR201. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR 368P, JOUR 370 or JOUR 670. Formerly: JOUR 368P. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Timothy Jacobsen F 12:00pm - 2:45pm	Seats (Total: 14) KNI 2107
0301	Timothy Jacobsen W 4:00pm - 6:45pm	Seats (Total: 14) KNI 1101
0501	Mauro Whiteman Th 5:30pm - 8:15pm	Seats (Total: 8) KNI 2107

JOUR382 **Sports Reporting and Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: JOUR320; and permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR682. Credit only granted for: JOUR328B, JOUR382 or JOUR682. Formerly: JOUR328B.

Gives students full and wide-ranging instruction in all aspects of sports reporting and writing, including how to report, write, edit and lay out sports stories, incorporating photography and multimedia. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kaitlyn Wilson, Kate Yanchulis M 4:00pm - 6:45pm	Seats (Total: 13) KNI 3202

JOUR396 **Supervised Internship**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: Must have earned a grade of C- or better in JOUR320. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR326, JOUR366, or JOUR396.

Students will complete a minimum of 90 hours in a supervised journalism internship over a minimum of 10 weeks in spring and fall, and eight weeks in summer. Emphasis is on relating academic training to professional experience. Students may pick up an internship proposal form in KNI 1100, have their internship supervisor fill it out, and meet with the college's internship director to receive permission to register. No requests to register after the Schedule Adjustment Period will be granted. This requirement would affect incoming freshmen from the fall 2012 class.

0101	Karen Denny Contact instructor or department for details.	Seats (Total: 45)

JOUR398 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular

Individual projects in journalism.

Contact department for information to register for this course.

JOUR402 **Journalism Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR201. Credit only granted for: JOUR402 OR JOUR400 and JOUR300.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Jeffrey Guo, Micah Ratner W 6:00pm - 8:45pm	Seats (Total: 42) KNI 1208
0201	Christoph Mergerson TuTh 11:00am - 12:15pm	Seats (Total: 42) KNI 1208

JOUR405 **Breaking News With Numbers: Statistics for Journalists**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSAR

Prerequisite: Minimum grade of C- in JOUR201; and (MATH107 or MATH110; or must have completed a higher level math course). Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Common statistical tools, software and data visualization techniques will be used to allow students to analyze data and solve problems relevant to reporting and writing about politics, sports, criminal justice, business and other fields.

0101	Tom Brune	Seats (Total: 38)
	Class time/details on ELMs	ONLINE

JOUR453 **News Coverage of Racial Issues**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | , D | General Education: DVUP

Restriction: Junior standing or higher.

Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

Jointly offered with AASP499N. Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

0101	Anne Rosen	Seats (Total: 25)
	TuTh 9:30am - 10:45am	KNI 3202

JOUR456 **Literature in Journalism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Credit only granted for: JOUR456 or JOUR673.

From Truman Capote's In Cold Blood to Mark Bowden's Black Hawk Down, students will examine how literary works can help writers approach a subject in a different way than more traditional forms of journalism, including the advantages and limitations of the style.

0101	Christopher Hanson	Seats (Total: 18)
	Tu 4:15pm - 7:00pm	KNI 3202

JOUR458B **Special Topics in Journalism; Sports Media Today**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Students will discuss working with various organizations' communications/media relations staff, coaches and players; distributing news of the organizations; and creating/maintaining methods for disseminating the news to the public in an honest and forthright manner. Also, traditional, digital and social media elements will be explored. Restriction: Junior Standing or higher.

0101	Rose DiPaula	Seats (Total: 26)
	Tu 3:30pm - 6:15pm	KNI 1208

JOUR458K **Special Topics in Journalism; The Changing Role, Responsibilities and Norms of Journalism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

This class will take students through a critical review of how news and information flows in society today, how that is continuously changing, and what it means about how journalists and news organizations should alter routines and practices and while defending foundational principles. Students will think about their own goals as news practitioners, their habits as consumers. Ultimately, they will draft a set of principles and practices and a statement of values for a news organization that they would lead, applying the critical thinking and historical review learned in the class.

0101	Thomas Rosenstiel	Seats (Total: 18)
	M 3:00pm - 5:45pm	KNI 1208

JOUR458M **Special Topics in Journalism; Sports, Protest, and the Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

This class will examine the development of our games, the history of of remonstration upon them and the machinations of media at the intersection of the two. It will answer why activists, whether athletes or not, have long commanded ceremonial and ritualistic games to promote a cause or take a stand. It will examine how important the role is of media as a collector, editor, interpreter, and disseminator of information, or news, about athletic competitions, athletes, and political pronouncements revolving around athletic events and their participants.

0101	Kevin Blackistone	Seats (Total: 15)
	MW 10:00am - 11:15am	KNI 1206

JOUR458N **Special Topics in Journalism; Managing Non-Profit Newsrooms**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Nonprofits are one of the fastest-growing segments of the news industry, and the most-successful organizations are filling gaps in local news ecosystems and serving communities that commercial outlets can no longer afford to serve. But at its core, "nonprofit" is a tax status, not a business model. Nonprofits face the same revenue challenges as their commercial counterparts - and a host of other challenges unique to their legal status. This course will explore the growth in the space; outline the challenges; and teach the basics of the business and economics of nonprofit management.

0101	Thomas Davidson	Seats (Total: 13)
	Tu 4:30pm - 7:15pm	KNI 1206

JOUR458P **Special Topics in Journalism; Climate Crisis, Climate Justice, Climate Security: Approaches to Covering Climate Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concerns and current interest.

Climate change is the single biggest challenge humanity faces - and, for journalists and media organizations, deciding how to cover it presents its own set of challenges. This course explores journalism paradigms for covering climate, focusing on three important concepts: climate change as an urgent crisis; the climate justice movement; and climate as a security issue - including global, national, community, and personal security.

0101	John McQuaid	Seats (Total: 18)
	M 1:30pm - 4:15pm	KNI 2109

JOUR459F **Special Topics in Journalism; Media in War and Crisis**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459I **Special Topics in Journalism; History of Investigative Journalism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Students will learn the history of investigative journalism in the U.S., focusing on key time periods from colonial times to the present.

0101	Mark Feldstein	Seats (Total: 13)
	M 1:00pm - 3:45pm	KNI 3202

JOUR459K **Special Topics in Journalism; Global Media and International Journalism in the 21st Century**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459L **Special Topics in Journalism; European Mass Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR459P **Special Topics in Journalism; Censorship and Disinformation in the 21st Century: The New Global War for Political Power**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

The world today is engaged in a fierce battle over the control of information as the precursor to political power and the survival of democracies. The internet, social media and President Trump, among others, delivered us to this historic moment, as did the democratic aspirations for people overseas and the authoritarian reactions against their movements. This course will examine the rise of global censorship and disinformation since Vladimir Putin's election in 2000. Our narrative will take us to Russia, Central and Western Europe, the Arab Middle East and the United States. We will examine the laws protecting U.S. media and technology companies and compare them to those in other countries. We will probe Trumps assertion of fake news against the media and dissect the Mueller Report to evaluate the media's reporting on the Trump administration. Finally, we will conduct an autopsy of the 2020 U.S. presidential election and its immediate aftermath, looking for evidence of both optimism and democracy's survivability. Moderate to heavy reading; emphasis on class participation, including team debates.

0101	Dana Priest	Seats (Total: 18)
	M 9:45am - 12:30pm	KNI 3200

JOUR459R **Special Topics in Journalism; Media and Human Rights in the Internet Age**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Human rights are the issues of our time, from Moscow's attack against Kyiv's imperfect democracy, from Beijing's sophisticated censorship of the internet to fierce battles over election laws and LGBTQ+ rights in the United States. The course focuses on new approaches and new roadblocks to coverage of such issues, as journalists and repressive governments refine their strategies to either obtain or suppress information about abuses. We will trace the evolution of the media's role in documenting human rights violations, from the U.S. Civil Rights movement to the Arab Spring to contemporary events online and on the ground. Students have opportunities to write each week on human rights issues and internet freedom, and to report and write in-depth, publishable articles.

0101	Robert Ruby MW 12:00pm - 1:15pm	Seats (Total: 18) KNI 1103	

JOUR459T **Special Topics in Journalism; Election 2022: Today's News Today**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

You will study how the issues that shape the off-year election are covered on the three evening news broadcasts. That includes Ukraine, COVID and the economy. The course stresses critical analysis of their intensively competitive reporting and storytelling.

0101	Tom Bettag M 10:00am - 12:45pm	Seats (Total: 18) KNI 1109	

JOUR459V **Special Topics in Journalism; Media and International Affairs**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Issues of special concern and current interest. Open to all students.

Contact department for information to register for this course.

JOUR472 **Data Journalism**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: JOUR320 or JOUR360. Jointly offered with: JOUR772. Credit only granted for: JOUR472 or JOUR772.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

0101	Rob Wells Tu 12:00pm - 1:50pm Th 12:00pm - 1:50pm	Seats (Total: 15) KNI 2103 KNI 2103	 Lab
0201	Derek Willis M 2:00pm - 3:50pm W 2:00pm - 3:50pm	Seats (Total: 1) KNI 2105 KNI 2105	 Lab

JOUR473 **Computational Journalism**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of the Philip Merrill College of Journalism. Cross-listed with: INST403. Jointly offered with: JOUR773. Credit only granted for: JOUR479V, JOUR473, INST408I or INST403. Formerly: JOUR479V and INST408I.

Designed to teach the application of computational methods in journalism and reporting. The methods include natural language processing, visualization, and web data mining. The course will also cover the necessity and impact of journalistic ethics in designing computation solutions.

0101	Naeemul Hassan	Seats (Total: 4)
	M 9:30am - 12:15pm	ONLINE

JOUR475 **Understanding Audiences and Analytics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Student must have completed a university statistics course. Credit only granted for: JOUR479O or JOUR475. Formerly: JOUR479O.

As journalism evolves, it may be more important than ever to understand what were once simply called "audiences" -- who they are, how they consume news, and what that engagement means for them and for society. Students will learn to think critically about news audiences and contemporary issues in audience research.

0101	Ronald Yaros	Seats (Total: 18)
	Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	ONLINE KNI 2105

JOUR479C **Special Topics in Data Gathering and Analysis; Follow the Money: Reporting on Business**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Business and economics reporting is one of the strongest sectors of journalism with lucrative employment opportunities. This class, designed for journalism and non-journalism majors, introduces students to the main economic and business themes that dominate news coverage. Topics discussed will include: corporate money and power in Washington, the ups and downs of the stock market, rising income inequality, the immigration crisis, why we have a trade war with China, the technology disruptors, among other things. This class will be helpful to students who want to enhance their career opportunities by understanding how the economy works, why globalization is important and how the biggest corporations-- including technology companies-have such a big influence on the way we live.

0101	Constance Ford	Seats (Total: 15)
	MW 3:30pm - 4:45pm	KNI 2107

JOUR479D **Special Topics in Data Gathering and Analysis; Using Investigative Tools in Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: A university statistics course. Introduces students to the journalists and techniques behind award- winning investigations. In-class meetings will dissect these stories, often with the reporters who did them. Reporters will share the methods behind their success and you'll experiment with them. Students will work on reporting stories through online tools, human sources, records, data and observation. Students will learn techniques that apply to all forms of journalism and all beats, whether broadcast or multi-platform, public affairs or sports.

0101	Deborah Nelson M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 15) KNI 3200 ONLINE

JOUR479E **Special Topics in Data Gathering and Analysis; Political Analysis**

(Perm req)

Credits: 3

Grading Method: Regular

Special research topics for reporting and writing.

Prerequisite: Must have completed a university statistics course. This course will provide students with advanced research skills to analyze elections, including political parties, candidates, news coverage, and voters. This will include a review of studies of election coverage as well as learning how to deploy a range of research tools in order to gain deeper understanding of elections and voting behavior. Students will learn how to conduct comparative analysis of campaign materials, analyze candidate performance, assess media treatment of candidates, forecast results as well as introduce students to a range of analytical tools for tracking data in traditional and social media.

0101	Sarah Oates MW 11:00am - 12:15pm	Seats (Total: 15) KNI 2107

JOUR479G **Special Topics in Data Gathering and Analysis; Video Game Industry Research**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

This course is a critical overview of current scholarship and debates surrounding video games and game players. Topics include the video game industry, culture of gameplay, video game narratives, uses and effects of games, controversial issues, the game production pipeline, and career opportunities. The class will also explore equality and inclusion within the eSports industry and what that means for future gaming generations.

0101	Nathaniel Stevens W 3:00pm - 5:45pm	Seats (Total: 15) KNI 1208

JOUR479X **Special Topics in Data Gathering and Analysis; Sports Data Analysis and Visualization**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Special research topics for reporting and writing.

Prerequisite: JOUR472/JOUR772 or permission of instructor. This course will provide students with replicable methods for analyzing sports data and creating visualizations that help find and illustrate patterns in order to find and tell stories. Using real-world sports data, students will learn to write code to ask and answer questions of it and to describe its meaning.

0101	Derek Willis TuTh 2:00pm - 3:50pm	Seats (Total: 15) KNI 2103

JOUR601 **Theories of Journalism and Public Communication**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Permission of JOUR-Philip Merrill College of Journalism.

Survey and evaluation of current communication theories. Attention is given to the nature and function of scientific theory, models of communication behavior, the nature of information, social functions of journalism and public communication, attitude change and persuasive communication and theories of language and meaning.

0101	Linda Steiner W 1:00pm - 3:45pm	Seats (Total: 9) KNI 2109

JOUR603 **News Videography**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: JOUR504; and permission of Journalism College required. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR262. Credit only granted for: JOUR503 or JOUR603. Formerly: JOUR503.

Introduction to shooting, editing and production of video stories for broadcast and the Web; includes newsgathering in the field.

0101	Graham Cullen F 10:00am - 12:45pm	Seats (Total: 12) KNI 1101

JOUR604 **Introduction to Multimedia Skills for Graduate Certificate Programs**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of JOUR-Philip Merrill College of Journalism; and must not have completed JOUR504. Credit only granted for: JOUR 604, JOUR504, or JOUR628G. Formerly: JOUR628G. Additional information: This course is for students enrolled in graduate certificate programs in the College of Journalism.

Examine the basics of producing and editing digital photos, video and audio for news. Topics include framing, lighting and other aspects of composition; sequencing, using wide, medium and tight shots; and ethical considerations when collecting sound and visuals.

PCJ1	Nicole Munchel Sa 8:30am - 12:15pm Class time/details on ELMs	Seats (Total: 14) KNI 1101 ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact oes@umd.edu.	

JOUR620 **Public Affairs Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR501; or permission of JOUR-Philip Merrill College of Journalism.

Designed to add to and sharpen the skills learned in JOUR501. It is primarily an introduction to "beat" reporting that allows students to sample the most common new beats while reporting and writing on deadline. Students are required to develop and hone their multimedia skills by reporting in a variety of media.

0101	Christine Harvey TuTh 9:30am - 11:20am	Seats (Total: 18) KNI 2103
0201	Joshua Davidsburg TuTh 9:30am - 11:20am	Seats (Total: 18) KNI 2107

JOUR625 **Advanced Capital News Service Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR620; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR625 or JOUR729. Formerly: JOUR729.

Advanced journalism training. Students report as part of College's Capital News Service program.

0101	James Carroll Contact instructor or department for details.	Seats (Total: 10)
0201	Ronald Harris Contact instructor or department for details.	Seats (Total: 10)

JOUR627 **Urban Affairs Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: JOUR501; and permission of JOUR-Philip Merrill College of Journalism. Corequisite: JOUR620; or permission of JOUR-Philip Merrill College of Journalism. Jointly offered with JOUR327. Credit only granted for: JOUR327 or JOUR627.

Students are immersed in coverage of issues affecting cities, working on a semester-long multi-platform reporting project based in Baltimore.

Students will use Baltimore as a working laboratory to report on urban issues. Course meets in Baltimore for the majority of the semester with a few meetings late in the semester in College Park.

0101	Rob Wells	Seats (Total: 2)
	M 1:45pm - 4:30pm	KNI 1210

JOUR628A **Specialized Topics in News Writing and Reporting; The Future of the News Industry and How to Reshape It: Mastering the Tools of Transformation**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620 This class will cover the changing economics ofthe news industry, its history and its future. It will teach some of theessentials of transformational change management in news and will culminate in students critiquing a gap in a news organization's model and designing a performance challenge plan for that news organization to address that gap through innovation.

0101	Thomas Rosenstiel	Seats (Total: 3)
	W 10:00am - 12:45pm	KNI 3200

JOUR628B **Specialized Topics in News Writing and Reporting; Sports Writing and Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. This course will give students full and wide-ranging instruction in all aspects of sports reporting and writing, from the history of the craft to its mechanics, including how to prepare to report and write sports stories, incorporating photography, audio, video and interactive mechanics and the laying out and editing of them. We will also discuss ethics, objectivity, fairness and the future of sports journalism.

0101	Kate Yanchulis, Kaitlyn Wilson	Seats (Total: 4)
	M 4:00pm - 6:45pm	KNI 3202

JOUR628C **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations I**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Advanced journalism training. Students work on investigative projects as part of the College's Howard Center for Investigative Journalism.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628I **Specialized Topics in News Writing and Reporting; Advanced Howard Center Investigations II**

(Perm req)

Credits: 3 Grading Method: Regular

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Advanced journalism training. Students work on in-depth investigative projects as part of the College's Howard Center for Investigative Journalism.

0101	Kathy Best	Seats (Total: 5)
	Contact instructor or department for details.	

JOUR628M **Specialized Topics in News Writing and Reporting; Sports Betting and College Sports**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR620. Legalized sports betting is changing the landscape of sports at every level. The impact on college sports is especially complicated. The National Collegiate Athletic Association bans athletes from betting on sports, professional or college. But on college campuses, the popularity of sports betting is growing rapidly. In this course, students examine and report on the present and future impact of sports betting on colleges from multiple perspectives: University presidents, athletic directors, coaches, athletes and students, among others.

0101	Mark Hyman	Seats (Total: 2)
	M 12:30pm - 3:15pm	KNI 1206

JOUR628T **Specialized Topics in News Writing and Reporting; Data Visualization**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR652. This course is focused on data visualization in the service of journalistic storytelling. Students will learn data visualization theory, best practices and methods, including how to create data visualizations using a variety of tools.

0101	Adam Marton	Seats (Total: 4)
	W 12:30pm - 3:15pm	KNI 2107

JOUR628V **Specialized Topics in News Writing and Reporting; Covering Comic Book Culture in Entertainment**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR501. Comic book culture's evolving impact in entertainment has been vast and rapidly growing. This course will look at the humble beginnings of comic book culture in entertainment, from the comic books themselves, to the adaptations that have become big business for movies, television, streaming and animation as well as how to write on/cover those moments.

0101	David Betancourt	Seats (Total: 1)
	Tu 6:00pm - 8:45pm	KNI 1105

JOUR628W **Specialized Topics in News Writing and Reporting; Foreign Reporting from College Park: The Art of Finding and Cultivating Sources Abroad**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite or corequisite: JOUR620. This research and reporting methods course will teach students how to find the right people in the United States and abroad to help them research and write stories about foreign events and about people living overseas, even if you don't speak the language. Students will learn how to find "guides" into a particular culture, how to make contacts almost anywhere and how to discover the network of people overseas that can help a reporter delve deep into one subject. We will also explore the American and foreign officials who can be indispensable for your stories. Students will be assigned to research and write a profile of a person or family in distress overseas; refugees, imprisoned human rights defenders and journalists or people living in conflict zones.

0101	Dana Priest	Seats (Total: 4)
	M 2:30pm - 5:15pm	KNI 3200

JOUR628Z **Specialized Topics in News Writing and Reporting; Making a Career as a Freelance Journalist**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Advanced training and practice in writing and reporting news. Repeatable to a maximum of six credits provided the content differs.

Prerequisite: JOUR501. Freelancing can give early-career journalists their first big break in the industry. This course will cover the basicsof launching a career as a freelance reporter: pitching, setting rates, forming relationships with editors, managing invoices and doing your taxes.

0101	chelsea Cirruzzo **Meets August 29, 2022 - October 14, 2022** M 5:00pm - 7:05pm	Seats (Total: 3) KNI 2103

JOUR634 **Audio and Podcast Reporting**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR660; or permission of Philip Merrill School of Journalism Associate Dean. Jointly offered with: JOUR334. Credit only granted for: JOUR334, JOUR368L, JOUR668L or JOUR634. Formerly: JOUR668L.

Students will learn the tools needed to report and produce short- and long-form audio storytelling, including writing, reporting, interviewing, production, editing, hosting and delivery. Field reporting and audio gathering outside of class are required, along with writing and mixing broadcast-quality audio stories. The class will produce a complete newscast on deadline, with live and pre-recorded elements. Various interests in audio reporting are welcome and encouraged.

0101	Steven Drummond, Alanna Delfino Tu 5:30pm - 8:15pm	Seats (Total: 3) KNI 1101

JOUR652 **Interactive Design and Development**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Corequisite: Offered to students enrolled in the journalism master's degree or certificate. Master's degree students should take JOUR 504 as a pre- or co-requisite. Certificate students are encouraged to take JOUR 604 as a co-requisite. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR652 or JOUR352.

Conceptualize, wireframe, design and build responsive Web pages using HTML, style sheets and other coding tools; work with open source interactive tools and JavaScript libraries to create charts, timelines and maps to tell stories.

0101	Gagan Nirula Th 5:30pm - 8:15pm	Seats (Total: 3) KNI 1101

PWJ1	Alexander Pyles	Seats (Total: 15)
	Sa 1:30pm - 5:15pm	ONLINE
	Must be in the Multimedia Journalism (GC) program. All other graduate students must request permission. Contact oes@umd.edu.	

JOUR655 **Advanced Online News Bureau**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

Prerequisite: JOUR603 or JOUR620; and (JOUR504 and JOUR652). Or permission of JOUR-Philip Merrill College of Journalism.

Advanced online journalism training. Students work as online reporters, editors and producers for a news site. Students also package copy from the print and broadcast news bureaus.

Prerequisites: JOUR 620 and 652 or equivalent. Contact the instructor to obtain permission. Course shares space with JOUR355.

0101	Adam Marton	Seats (Total: 5)
	Contact instructor or department for details.	
0201	Alexander Pyles	Seats (Total: 4)
	Contact instructor or department for details.	

JOUR660 **Broadcast News Writing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR501. Credit only granted for: JOUR660 or JOUR760. Formerly: JOUR760.

Descriptive and critical analysis of broadcast news; methods of evaluation of news judgments; decision-making and organizational aspects of the broadcast news industry.

0101	Alison Burns	Seats (Total: 8)
	MW 10:00am - 11:50am	KNI 2105

JOUR661 **Television Reporting and Production**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: JOUR603; or students who have taken courses with comparable content may contact the department. Restriction: Must not be in Journalism Studies (Doctoral) program.

Reporting, writing, editing and production of broadcast news.

0301	Joshua Davidsburg	Seats (Total: 1)
	TuTh 12:00pm - 1:50pm	TWS 0222B

JOUR662 **Broadcast News Producing**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed or be concurrently enrolled in JOUR661; and (JOUR603 and JOUR660). Jointly offered with JOUR362. Cred it only granted for: JOUR668B or JOUR662. Formerly: JOUR668B.

Learn and practice the basics of broadcast newscast producing. Design, write, edit and implement a news program.

0102	Cindy Wright Tu 7:15pm - 9:15pm Tu 2:00pm - 6:50pm	Seats (Total: 1) TWS 0117 TWS 0117	 Lab
0104	Cindy Wright Tu 7:15pm - 9:15pm Th 2:00pm - 6:50pm	Seats (Total: 1) TWS 0117 TWS 0117	 Lab

JOUR664 **Advanced Audio and Podcast Reporting**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: JOUR634; or permission of JOUR-Philip Merrill College of Journalism. Restriction: Permission of JOUR-Philip Merrill College of Journalism. Jointly offered with: JOUR364.

Students receive professional skills training in the reporting, writing, editing, voicing and production of radio news. Students will be required to do extensive field reporting, along with writing and mixing broadcast-quality radio pieces. They will also participate in other aspects of radio news production, including editing, directing, live interviewing and hosting. By the end of the semester, students will have created all the elements of a complete radio broadcast, including news spots, finished pieces, two-ways and a long-form audio segment. The class will also delve into the history and evolution of radio news and its future in podcasting and other forms.

0101	Robert Little W 5:30pm - 8:15pm	Seats (Total: 8) KNI 3210

JOUR667 **Broadcast News Bureau**

(Perm req)

Credits: 6

Grading Method: Regular, Audit

Prerequisite: JOUR503; or students who have taken courses with comparable content may contact the department. And permission of JOUR-Philip Merrill College of Journalism.

Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

Jointly offered with JOUR367.

0101	Melvin Coffee	Seats (Total: 15)
	Contact instructor or department for details.	

JOUR668D **Topics in Broadcasting and Electronic Media; Social Media Content Creation, Audience Engagement and Analytics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR620. This class will provide students with an overview of social media best practices for journalists, and will work to develop their skills in the following areas: social content creation, audience engagement, sourcing and verification and analytics. By the end of this course, students will have the practical skills needed to managea social media account for themselves (as student or professional journalists) or contribute to the management of a news organization's social media pwesence.

0101	Alexander Pyles	Seats (Total: 3)
	Th 12:30pm - 1:45pm	KNI 2105
	Class time/details on ELMs	ONLINE

JOUR668I **Topics in Broadcasting and Electronic Media; Designing Stories with Motion Graphics**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR652. In this course, students will learn how to create motion graphics that turn data and facts into visually compelling animated stories. Students will learn theories and practices of animation, design and visual journalism. After completing this course, students will have a solid grasp of storyboarding, scripting and creating motion graphic stories using the Adobe After Effects software.

0101	Krishnan Vasudevan	Seats (Total: 3)	
	M 12:00pm - 1:50pm	KNI 2105	
	W 12:00pm - 1:50pm	KNI 2105	Lab

JOUR668L **Topics in Broadcasting and Electronic Media; Introduction to Studio Production**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603. This course will take you through every production aspect related to studio production. This includes learning how to plan and execute a live studio production featuring camera crews, a floor director, producer, director, technical director, audio, and teleprompter. Labs will focus on putting together and executing a live newscast production. Students will also be able to go on live shots with reporters to run camera/lighting.

0101	Nathaniel Stevens M 4:00pm - 5:30pm Tu 4:00pm - 6:00pm	Seats (Total: 1) TWS 0117 TWS 0116	 Lab
0102	Nathaniel Stevens M 4:00pm - 5:30pm Th 4:00pm - 6:00pm	Seats (Total: 1) TWS 0117 TWS 0116	 Lab

JOUR668N **Topics in Broadcasting and Electronic Media; Advanced Photojournalism**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR670. This course will provide a deeper dive into the storytelling medium of photojournalism. Students will learn the skills necessary to tell in-depth, long-term stories through the use of still photography. Topics of discussion will include the history of photojournalism, changing approaches to the photo story/photo essay over time, how to approach a variety of potential subject matter and situations, finding long-term photo story projects and organizing images for a variety of digital and traditional formats.

0101	Timothy Jacobsen F 9:00am - 11:45am	Seats (Total: 6) KNI 2107

JOUR668X **Topics in Broadcasting and Electronic Media; Documentary Filmmaking**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR620/JOUR660. Hands-on independent documentary production. From pre-production to distribution, the class will include field production, pitching, grant writing and more.

0101	Joshua Davidsburg TuTh 2:00pm - 3:50pm	Seats (Total: 4) TWS 0222B

JOUR668Y **Topics in Broadcasting and Electronic Media; Sports Producing**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advance research and analysis of selected topics in broadcast journalism.

Prerequisite: JOUR603 and JOUR660. This class will take an analytical look at sports TV and sports content by deconstructing shows. We will examine the producer's role in creating the look, feel and direction of shows and learn how to choose a lead story, how to "tease" effectively and the importance of identifying and telling good stories. We will watch live televised sporting events to better understand the techniques used by directors and producers. Students will get hands-on experience with BTN2GO and learn all aspects of live game production.

0101	Joseph Yasharoff W 7:00pm - 9:45pm	Seats (Total: 4) KNI 2103

JOUR670 **Photojournalism**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: JOUR504. Restriction: Must be in a major in JOUR-Philip Merrill College of Journalism; and permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR 368P, JOUR 370 or JOUR 670. Additional information: Students are required to borrow, rent or purchase a 35mm digital camera. Contact department for camera specifications.

Examining the basics of shooting, editing and storytelling with still photos taken with 35mm digital cameras. Students shoot portraits, feature photos and action shots. Final project is a photo story/essay.

0101	Mauro Whiteman Th 5:30pm - 8:15pm	Seats (Total: 6) KNI 2107

JOUR698 **Special Problems in Communication**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Independent study in area of the student's interest.

Contact department for information to register for this course.

JOUR702 **Journalism Law and Ethics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Journalism - Master (Master's); Journalism Studies (Doctoral)) ; or permission of JOUR-Philip Merrill College of Journalism. Credit only granted for: JOUR400, JOUR 600, JOUR700, or JOUR 702.

An examination of the legal rights and ethical problems and constraints of mass media, including libel, privacy, copyright, monopoly and contempt.

0101	Christoph Mergerson TuTh 2:00pm - 3:15pm	Seats (Total: 36) KNI 3202

JOUR772 **Data Journalism**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed JOUR502, or students who have taken courses with comparable content may contact the department. Jointly offered with: JOUR472. Credit only granted for: JOUR772 or JOUR472.

A practical, skills-based course in the basics of modern data journalism, data literacy and data storytelling. Students will learn to use data visualization, data analysis and other data-driven reporting techniques.

0201	Derek Willis M 2:00pm - 3:50pm W 2:00pm - 3:50pm	Seats (Total: 17) KNI 2105 KNI 2105	 Lab
0301	Sean Mussenden TuTh 3:20pm - 5:10pm	Seats (Total: 18) ONLINE	

JOUR773 **Computational Journalism**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of the Philip Merrill College of Journalism. Cross-listed with: INST617. Jointly offered with: JOUR473. Credit only granted for: JOUR779V, JOUR773, JOUR473, JOUR479V, INST617, INST408I, or INST403. Formerly: JOUR779V.

Designed to teach the application of computational methods in journalism and reporting. The methods include natural language processing, visualization, and web data mining. The course will also cover the necessity and impact of journalistic ethics in designing computation solutions.

0101	Naeemul Hassan M 9:30am - 12:15pm	Seats (Total: 12) ONLINE

JOUR775 **Quantitative Methods in Journalism and Public Communication Research**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: JOUR701 or JOUR775. Formerly: JOUR701.

Logic and methods of quantitative data collection and statistical analysis as applied to journalism and public communication studies.

Permission Required.

0101	Ronald Yaros F 10:00am - 12:45pm	Seats (Total: 10) KNI 2105

JOUR779I **Seminar in Research Problems; History of Investigative Journalism**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Methods of research design and analysis in specialized areas of journalism and public communication research.

Students will learn the history of investigative journalism in the U.S., focusing on key time periods from colonial times to the present.

0101	Mark Feldstein M 1:00pm - 3:45pm	Seats (Total: 5) KNI 3202

JOUR798 **Master's Professional Fieldwork**

(Perm req)

Credits: 2-6 Grading Method: Sat-Fail

Research for and preparation of news articles or programs for use in the media. Analysis of fieldwork experience using communication theory and research results. Fieldwork may be done independently or as an internship. Repeatable to a maximum of six credits.

Contact department for information to register for this course.

JOUR799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JOUR800 **Introduction to Doctoral Study in Journalism and Public Communication**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: JOUR700 or JOUR800. Formerly: JOUR700.

Basic skills in journalism and public communication research.

0101	Krishnan Vasudevan W 9:00am - 11:45am	Seats (Total: 10) KNI 2109

JOUR888 **Doctoral Professional Field Work**

Credits: 3-9 Grading Method: Regular, Audit

Critical analysis of a phase of a professional field in journalism and public communication. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

JOUR889 **Doctoral Tutorial in Journalism and Public Communication**

Credits: 3-9 Grading Method: Regular, Audit

Individual research in journalism and public communication.

Contact department for information to register for this course.

JOUR898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

JOUR899 **Doctoral Dissertation Research in Journalism and Mass Communication**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

JWST Jewish Studies Fall 2022

JWST187 **God, Land, Power, and the People: Moral Issues in the Jewish Historical Experience**

Credits: 3 Grading Method: Regular General Education: DSHS, DSHU, DVUP, SCIS

Cross-listed with: HIST187. Credit only granted for: HIST187 or JWST187.

Examines the complicated relationship between theology, nationalism, sovereignty, and the ethical exercise of social control using case studies drawn from the Jewish historical experience. The universal and age-old issues implicit in the exercise of power have gained special moral force for Jews with the creation of the State of Israel, a Jewish and a democratic state with substantial non-Jewish minorities and hundreds of thousands of non-citizen subjects. Can these be reconciled? Jewish efforts over the ages and in recent times to define justice provide concrete examples through which to examine and discuss crucial abstract principles.

0101	Bernard Cooperman TuTh 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0102	Bernard Cooperman TuTh 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 KEY 0100	 Discussion
0103	Bernard Cooperman TuTh 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 TLF 2103	 Discussion

JWST219C **Special Topics in Jewish Studies; Contemporary Israel: History and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219D **Special Topics in Jewish Studies; Women in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219E **Special Topics in Jewish Studies; Writing Israel**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

JWST219F **Special Topics in Jewish Studies; Storytelling in Israeli Animation and Literature**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with ISRL249B, TDPS258W, ENGL289F, and CINE298E. Credit only granted for ISRL249B, TDPS258W, JWST219F, ENGL289F, or CINE298E. How short can a story be and still stand as a complete and meaningful creation? In animation, where every second consists of 25 handmade frames, the idea of short is brought to its extreme. Students will explore the structures of short stories and short animation films, with particular attention to Jewish and Israeli examples. Students will observe the basic elements that turn a short occurrence into a story and will practice live storytelling to experiment with different approaches to the narrator's role and the tension between text and image. Special emphasis will be given to the use of narration in animation films.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 1815

JWST230 **Inventing Traditions: The Making of Rabbinic Judaism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHS, DSHU, SCIS

Cross-listed with: HIST281, RELS230. Credit only granted for: HIST281, JWST230, RELS219C or RELS230. Formerly: RELS219C.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

0101	Hayim Lapin	Seats (Total: 30)
	MW 2:00pm - 3:15pm	EGR 1104

JWST262 **Introduction to the Hebrew Bible/Old Testament**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU

Cross-listed with: ENGL262, HEBR298B. Credit only granted for: JWST262, HEBR293B, or ENGL262.

Origins of the Hebrew Bible (Old Testament), with attention to literary formations, archaeology, and social-political settings. Explorations of major questions, including who wrote the Bible, and when; relationships of the biblical tradition to the mythology and religious structures of ancient Israel's near eastern neighbors; and dynamics of politics, religious leadership, and law.

0101	Matthew Suriano MW 2:00pm - 3:15pm	Seats (Total: 25) ESJ B0322	

JWST272 **Diversify and Multiply: Jewish Culture and the Production of an Identity**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HL | General Education: DSHU, DVUP

Cross-listed with: CMLT242, ISRL249G. Credit only granted for: JWST272, CMLT242, or ISRL249G.

Provides students with a unique exploration of cultural products produced by a diverse array of Jewish creators of literature, comedy and film. The texts, films, and performing arts touch on the central social, economic, and cultural issues of Jews during the ages, and up to the 21st century. This course will explore Jewish creativity throughout history, as well as the Jewish encounter with modernity as a whole. We will be diving into prominent creators such as Tiffany Haddish, Larry David, Sholem Aleichem, Adam Sandler, S. Y. Abramovitsch, Judd Apatow, Philip Roth, Amy Schumer, I. B. Singer, Ben Stiller, Franz Kafka, Dan Levy, and others. Examining their creations will open a window to the diverse methods of construction of modern Jewish identities.

0101	Adi Mahalel TuTh 3:30pm - 4:45pm	Seats (Total: 30) ASY 3215	

JWST274 **Jerusalem in Antiquity: The History of Sacred Space in a Holy City**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

Cross-listed with: RELS274. Credit only granted for: JWST274, RELS274, JWST289J or RELS289J. Formerly: JWST289J, RELS289J.

Examines the complex history of Jerusalem's status as a holy city, with a focus on constructions of sacred space in Judaism, Christianity, and Islam.

0101	Matthew Suriano MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) CSI 3117 ONLINE	 Discussion
0102	Matthew Suriano MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) CSI 3117 ONLINE	 Discussion
0103	Matthew Suriano MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) CSI 3117 ONLINE	 Discussion

0104	Matthew Suriano	Seats (Total: 20)		
	MW 11:00am - 11:50am W 2:00pm - 2:50pm	CSI 3117 ONLINE	Discussion	

JWST281 **Yiddish I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: GERS141. Credit only granted for: JWST281, GERM148Y or GERS141.

Introduction to the Yiddish language, with emphasis on speaking, reading, and writing skills. Students will also learn the history of the language, its significance to Jewish culture, its origins and basic structure.

Cross-listed with GERM148Y. Credit only granted for JWST281 or GERM148Y. This is a Big-Ten Academic Alliance Course-Share Course.

0101	Adi Mahalel	Seats (Total: 20)	
	TuTh 12:30pm - 1:45pm	JMZ 2125	

JWST319B **Special Topics in Jewish Studies; Arab-Israeli Relations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319E **Special Topics in Jewish Studies; Literature of the Shoah**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Contact department for information to register for this course.

JWST319F **Special Topics in Jewish Studies; Ethnicity, Nationalism, and the Jews**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics in Jewish Studies.

Cross-listed with HIST339B. Credit only granted for HIST339B or JWST319F. Explores the Jewish ethnic identity and the various ways that Jews fashioned themselves into a nation in the nineteenth and twentieth centuries. The course will deal with Zionism, but also with Jewish Socialism (the Bund), diaspora nationalism, and other movements primarily in Eastern Europe which claimed that Jews were a nation entitled to national rights. We will also deal with how Jews positioned themselves as a nation in the complex multinational societies of East Central and Eastern Europe. The course will also deal with Jewish ethnicidentity in America and creating a Jewish nation in Israel.

0101	Marsha Rozenblit	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	JMZ 0122

JWST319Y **Archaeological Methods and Practice**

Credits: 3 Grading Method: Regular General Education: DSHS

Prerequisite: ANTH240, ARTH200, or CLAS180. Cross-listed with: ANTH305, ARTH305, CLAS305. Credit only granted for: ANTH305, ARTH305, CLAS305, or JWST319Y.

A team-taught, interdisciplinary course discussing theories, methods, and ethical issues in the practice of archaeology.

0101	Matthew Suriano	Seats (Total: 35)
	TuTh 2:00pm - 3:15pm	SQH 1103

JWST333 **Jews in Early Modern Times 1450-1750**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Recommended: HIST282 or JWST234. Cross-listed with HIST373. Credit only granted for: JWST333 or HIST373. Formerly: JWST419C.

Emergence of new powerful population centers, religious and cultural creativity, new forms of community, and radical messianic movements.

0101	Bernard Cooperman	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	ATL 2416

JWST334 **Mizrahi Identity in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Cross-listed with: ISRL330, HIST377. Credit only granted for: JWST319D, JWST334, HIST377, HIST329Z, ISRL329M, or ISRL330. Formerly: ISRL329M.

It is impossible to understand Israeli society today without examining the Mizrahi experience. Despite the common misconception that Israel is predominantly made up of Jews from European origin, the fact of the matter is that Jews of Mizrahi origin, whose parents and grandparents immigrated to Israel from the Middle East and North Africa, represent a major part of the Israeli population. Moreover, Ashkenazi-Mizrahi relations continue to be a major source of tension in Israeli politics, and issues of race continue to come up on social media and polarize the Israeli society. This course brings to light narratives of Mizrahi identity in Israel and explores the trajectory of the Mizrahi struggle for equality and against racism through its various milestones: the 1959 Wadi Salib Revolt, the Black Panthers Movement in the 1970s, the emergence of the Israeli Sephardi-Orthodox party Shas, and the new wave of Mizrahi activism in the 21st century.

0101	Shay Hazkani	Seats (Total: 20)
	MW 11:00am - 12:15pm	VMH 1107

JWST344 **Modern Jewish History II: World Jewry Since 1870**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with HIST375. Credit only granted for: HIST375 or JWST344.

Social, political, economic, and cultural change in the Jewish world since 1870. Emphasis on emancipation, assimilation, and new forms of Jewish identity in Western and Eastern European Jewry from the 19th Century to the present.

0101	Marsha Rozenblit	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TYD 1114

JWST369A **Special Topics in Study Abroad III; The Holocaust: 20th Century Jewish Thought**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

JWST372 **Jewry of Muscle: Zionism and Jewish Masculinity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Cross-listed with: ISRL372. Credit only granted for: JWST319K, ISRL329K, JWST372 or ISRL372. Formerly: JWST319K or ISRL329K.

Part of the Zionist cultural project involved creating a new Jewish masculinity that would replace the diasporic "sissy Jew" with a strong, healthy new "Jewry of Muscle." Using literary and cinematic sources, we will analyze how these Zionist and Israeli cultural productions served to build (and sometimes undermine) this new model of Jewish masculinity.

0101	Shirelle Doughty	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

JWST408 **Honors Seminar in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

Contact department for information to register for this course.

JWST409 **Research Seminar in Jewish Studies**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

Contact department for information to register for this course.

JWST418 **Honors Thesis Research in Jewish Studies**

(Perm req)

Credits: 3

Grading Method: Regular

Guided research on a thesis under the supervision of the Jewish Studies faculty.

Contact department for information to register for this course.

JWST419C **Special Topics in Jewish Studies; Representing the Holocaust**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with CINE469E. Credit only granted for CINE469E, FILM469E,or JWST419C. An examination of cinematic representations of the Jewish Holocaust in the 20th century, within the overlapping contexts of three critical lines of investigation: the efficacy and social function of aesthetic representation; the expressiveness of film in relation and contrast to other media (graphic literature, prose & poetry, photography); and genocide as a broad cinematic theme (Rwanda, Cambodia, slavery in the Americas).

0101	Eric Zakim	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ESJ B0322

JWST459 **Readings in Medieval Hebrew**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Readings and analysis of Hebrew texts and literature from the Middle Ages. Language of instruction in English; all texts in Hebrew.

Contact department for information to register for this course.

JWST468 **Readings in the Hebrew Bible**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail, Audit

Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

Contact department for information to register for this course.

JWST469 **Readings in Rabbinic Hebrew**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Readings in classical rabbinic texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts in original language.

Knowedge of Hebrw and/or permission of Instructor. Readings in Classical Rabbinic Texts and related corpora. Emphasis on grammar and reading skills as well as critical analysis of the material. Language of instruction: English; all texts

Contact department for information to register for this course.

JWST478 **Readings in Modern Hebrew**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Variable topics in Modern Hebrew Literature.

Contact department for information to register for this course.

JWST499 **Independent Study in Jewish Studies; Independent Study in Jewish Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: permission of department.

Contact department for information to register for this course.

JWST609 **Supervised Instruction-Practicum in Jewish Studies**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Supervised instruction or supervised practicum in Jewish Studies. Intended for graduate students whose course work includes field work or classroom teaching.

Contact department for information to register for this course.

JWST619 **Directed Readings in Jewish Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Independent Study in Jewish Studies. Readings and papers.

Contact department for information to register for this course.

JWST648 **Readings in Jewish History**

(Perm req)

Credits: 3 Grading Method: Regular

Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Focus on the central issues in Jewish history as well as the key historiographical debates on those issues.

Contact department for information to register for this course.

JWST658 **Readings in Jewish Thought and Culture**

(Perm req)

Credits: 3 Grading Method: Regular

Examines key issues in the development of Jewish thought and culture.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines key issues in the development of Jewish thought and culture.

Contact department for information to register for this course.

JWST678 **Readings in Jewish Literature**

(Perm req)

Credits: 3 Grading Method: Regular

Examines selected themes or literatures in the development of Jewish literary traditions.

Prerequisite: permission of department. Repeatable to 9 credits if content differs. Examines selected themes on literatures in the development of Jewish literary traditions.

Contact department for information to register for this course.

JWST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Research and Writing the Masters Thesis in Jewish Studies.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES Kinesiology Fall 2022

KNES120A **Fitness Walking**

Credits: 1 Grading Method: Regular, Pass-Fail

This is a co-ed physical activity course for beginning fitness walking.

Students must pay a $40 instructional materials fee.

0101	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		
0102	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		
0103	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		

0104	Andrea Liberto	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	Class time/details on ELMs	ONLINE	Lab
	Restricted to students in KNES major (08351).		

KNES131N **Physical Education Activities: Coed; Jogging (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required of all students beginning the first day of class. Credit only granted for KNES131V or KNES131N. Students must pay a $40 instructional materials fee. Beginning jogging prepares students to safely jog for 30 minutes continuously or to cover a 5K distance by the end of the semester.

0101	Enkhtushig Idersuut	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	MW 2:00pm - 3:00pm	SPH 2101	Lab
0102	Enkhtushig Idersuut	Seats (Total: 30)	
	Class time/details on ELMs	ONLINE	
	TuTh 8:00am - 9:00am	SPH 2101	Lab

KNES137N **Physical Education Activities: Coed; Golf (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40 instructional materials fee.

0101	Jeff Maynor	Seats (Total: 24)	
	Meets August 29, 2022 - October 14, 2022		
	MW 10:00am - 12:00pm	GLF 1102	Lab

KNES137O **Physical Education Activities: Coed; Golf (Intermediate)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required the first day of class. Schedule adjustment is the first week of class only. Students must pay a $40 instructional materials fee.

0101	Jeff Maynor	Seats (Total: 24)	
	Meets August 29, 2022 - October 14, 2022		
	MW 12:00pm - 2:00pm	GLF 1102	Lab

KNES144Q **Physical Education Activities: Coed; Martial Arts, Karate (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required of all students beginning the first day of class. Students must pay a $40 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 30)	
	MW 10:00am - 12:00pm	SPH 0107	Lab
	Restricted to students in KNES major (08351).		

KNES144T **Physical Education Activities: Coed; Self-Defense (Beginning)**

Credits: 2 Grading Method: Regular, Pass-Fail

Attendance is required of all students beginning the first day of class. Students must pay a $40 instructional materials fee.

0101	Kenneth Klotz	Seats (Total: 30)	
	MW 8:00am - 10:00am	SPH 0107	Lab
	Restricted to students in KNES major (08351).		

KNES157N **Physical Education Activities: Coed; Weight Training (beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

0101	Jo Zimmerman	Seats (Total: 25)	
	Meets August 29, 2022 - October 14, 2022		
	Contact instructor or department for details. MW 11:00am - 12:50pm	SPH 0103	Lab
	Restricted to students in KNES major (08351).		
0201	Jo Zimmerman	Seats (Total: 25)	
	Meets October 17, 2022 - December 12, 2022		
	Contact instructor or department for details. MW 11:00am - 12:50pm	SPH 0103	Lab
	Restricted to students in KNES major (08351).		

KNES161N **Physical Education Activities: Coed; Conditioning (Beginning)**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required of all students (via ELMS response) beginning the first day of class. Schedule adjustment is the first week of classes only. Students must pay a $40 instructional materials fee.

0101	Jo Zimmerman	Seats (Total: 30)	
	Class time/details on ELMs MW 1:00pm - 2:00pm	ONLINE SPH 2101	Lab
	Restricted to students in KNES major (08351).		
0102	Jo Zimmerman	Seats (Total: 30)	
	Class time/details on ELMs TuTh 2:00pm - 3:00pm	ONLINE SPH 2101	Lab
	Restricted to students in KNES major (08351).		

KNES161T **Physical Education Activities: Coed; Yoga**

Credits: 1 Grading Method: Regular, Pass-Fail

Attendance is required of all students beginning the first day of class. Schedule adjustment is the first week of classes only. Students must pay a $40 instructional materials fee.

0101	Kate Shin	Seats (Total: 40)
	Meets August 29, 2022 - October 14, 2022	
	Class time/details on ELMs	ONLINE
	Restricted to students in KNES major (08351).	
0201	Kate Shin	Seats (Total: 40)
	Meets October 17, 2022 - December 12, 2022	
	Class time/details on ELMs	ONLINE
	Restricted to students in KNES major (08351).	

KNES200 **Introduction to Kinesiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a Kinesiology major within first 2 semesters; or must not be in Kinesiology program and have less than 60 credits. Credit only granted for: KNES200 or KNES201.

Kinesiology is the interdisciplinary study of physical activity that includes seven sub-disciplines: 1) exercise physiology; 2) biomechanics; 3) sport psychology; 4) motor development; 5) motor control; 6) sport history; and 7) sport sociology. This course will examine these areas of study within Kinesiology from scientific and applied perspectives.

0101	Andrea Liberto Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 30) SPH 1302 ONLINE
0102	Andrea Liberto Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 10) SPH 1302 ONLINE
0103	Andrea Liberto Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 30) SPH 1302 ONLINE
0104	Andrea Liberto Th 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 10) SPH 1302 ONLINE

KNES201 Kinesiological Principles of Physical Activity

Credits: 1 Grading Method: Regular, Pass-Fail

Corequisite: Any physical activity course, e.g., KNES 100-190; or permission of SPHL-Kinesiology department. Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: KNES200 or KNES201.

An introduction to Kinesiology, the study of human movement, through the experience of learning a specific motor skill or being engaged in physical activity. Emphasis on the theories and knowledge underlying the learning and performance of all motor and sport skills.

KNES Majors Only.

0101	Andrea Liberto **Meets August 29, 2022 - October 14, 2022** M 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) HBK 0125 ONLINE
0201	Andrea Liberto **Meets October 17, 2022 - December 12, 2022** M 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 25) HBK 0125 ONLINE

KNES214 Science and Methods of Personal Fitness Instruction

Credits: 3 Grading Method: Regular General Education: DSSP

Credit only granted for: KNES214 or KNES210 and KNES211, or KNES210 and KNES212, or KNES289N. Formerly: KNES210/KNES211, KNES210/KNES212, and KNES289N.

Basic concepts of human anatomy, exercise physiology, applied kinesiology, nutrition and the physiology of exercise training. Includes the CORE knowledge required for the American Council on Exercise (ACE) Personal Trainer certification.

0101	Rosemary Lindle Class time/details on ELMs M 9:00am - 10:50am	Seats (Total: 25) ONLINE SPH 0103	 Lab
0102	Rosemary Lindle Class time/details on ELMs W 9:00am - 10:50am	Seats (Total: 25) ONLINE SPH 0103	 Lab

KNES225 Hoop Dreams: Black Masculinity and Sport

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSHS, SCIS

Credit only granted for: KNES289R OR KNES225. Formerly: KNES289R.

Has sport disadvantaged African American males? This course critically examines sport as a site where notions of black masculinity are publicly debated, critiqued, challenged, celebrated, and also transformed. Utilizing an interdisciplinary approach, this course explores how sport has been invoked across the political and ideological spectrum to interrogate a number of issues impacting the life chances of young, African Americans males including educational attainment, poverty, social mobility, racism, cultural production, and notions of masculinity.

0101	Ronald Mower MW 4:00pm - 5:15pm	Seats (Total: 48) SPH 1302

KNES226 The Cybernetic Human

Credits: 3 | Grading Method: Regular, Pass-Fail | General Education: DSNS, SCIS

Credit only granted for: KNES289W OR KNES226. Formerly: KNES289W.

Can the profound and rapid technological advances experienced in the 21st century change what it means to be human or the nature of humanity? Emergent technologies, new materials, increased computer power, engineering innovations, and groundbreaking work in the sciences of cognition and action provide myriad opportunities for repairing and enhancing the human body and brain. Examines the ethical, social, and technological implications of an increasing synergism of technology and the body in sports and the arts, at work or home, rehabilitating the body and the brain, and society at large.

0101	Tim Kiemel MF 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 20) HJP 0226 SPH 0303	Discussion
0102	Tim Kiemel MF 2:00pm - 2:50pm W 12:00pm - 12:50pm	Seats (Total: 20) HJP 0226 SPH 0303	Discussion
0103	Tim Kiemel MF 2:00pm - 2:50pm W 1:00pm - 1:50pm	Seats (Total: 20) HJP 0226 SPH 0303	Discussion
0104	Tim Kiemel MF 2:00pm - 2:50pm W 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 SPH 0303	Discussion

KNES235 **Swimming Pool Management**

Credits: 2 | Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: KNES235 or KNES335. Formerly: KNES335.

Analysis of the position of the swimming pool manager. The systematic treatment of swimming pool water; swimming pool first aid; and laws pertaining to swimming pool operation. Qualifies the student for a pool operator's license in most Maryland counties.

0101	Natalie Taylor, John Felts TuTh 9:30am - 10:30am	Seats (Total: 24) ERC B0136

KNES260 **Science of Physical Activity and Cardiovascular Health**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: LS | General Education: DSNS, DSSP

Course details (1) the public health importance of and the processes underlying cardiovascular disease, (2) the risk factors for cardiovascular disease and the methods whereby they were identified, and (3) the principles of the scientific evidence supporting the use of physical activity to prevent cardiovascular disease.

0101	James Hagberg MW 12:00pm - 12:50pm M 9:00am - 9:50am	Seats (Total: 20) PLS 1130 SPH 0125	Discussion

0102	James Hagberg MW 12:00pm - 12:50pm M 10:00am - 10:50am	Seats (Total: 20) PLS 1130 SPH 0125	Discussion

KNES282 **Basic Care and Prevention of Athletic Injuries**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within the SPHL-Kinesiology department. Credit only granted for: KNES282 or KNES381.

Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

KNES Majors only.

0101	Joanne Klossner TuTh 2:00pm - 3:15pm *This section is for KNES Majors Only.*	Seats (Total: 40) CCC 1200	

KNES285 **History of Physical Culture, Sport, & Science in America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVUP

Restriction: Restricted to majors or non-majors with less than or equal to 60 credits. Credit only granted for: KNES285 or KNES293.

Examines the history of physical culture in America, focusing on the period from the end of the Civil War to the Cold War. Physical culture refers to a broad range of movement practices including sport, play, rehabilitative exercise, health and fitness training, and recreation and leisure. More specifically, we challenge the idea that historical physical culture practices--and the scientific processes from which they were derived--were 'neutral' or 'objective'; rather, we explore the cultural, social, political, and economic contexts shaping physical culture knowledge, study, structures, and policies across American history. The goal is for you to learn and apply techniques of historical analysis to develop a critical understanding of how knowledge about, and practices of, physical culture supported a particular social order via the construction of difference, norms, and/or hierarchies, and ultimately contributed to some of the inequalities that endure today.

0101	Shannon Jette MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0102	Shannon Jette MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion

0103	Shannon Jette MW 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0104	Shannon Jette MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0105	Shannon Jette MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0106	Shannon Jette MW 10:00am - 10:50am F 12:00pm - 12:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0107	Shannon Jette MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
0108	Shannon Jette MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 18) SPH 1312 SPH 0305	Discussion
FC01	Tori Justin TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) ATL 1114	

KNES287 **Sport and American Society**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: SB, D | General Education: DSHS, DVUP

Recommended: Minimum grade of C- in KNES285.

Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

Restricted to majors or non-majors with less than or equal to 45 credits.

0101	David Andrews MW 2:00pm - 2:50pm M 8:00am - 8:50am	Seats (Total: 18) SPH 1312 JMP 1109	Discussion
0102	David Andrews MW 2:00pm - 2:50pm M 9:00am - 9:50am	Seats (Total: 18) SPH 1312 JMP 1109	Discussion
0103	David Andrews MW 2:00pm - 2:50pm M 10:00am - 10:50am	Seats (Total: 18) SPH 1312 JMP 1109	Discussion
0104	David Andrews MW 2:00pm - 2:50pm M 11:00am - 11:50am	Seats (Total: 18) SPH 1312 JMP 1109	Discussion
0105	David Andrews MW 2:00pm - 2:50pm W 8:00am - 8:50am	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0106	David Andrews MW 2:00pm - 2:50pm W 9:00am - 9:50am	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0107	David Andrews MW 2:00pm - 2:50pm W 10:00am - 10:50am	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
0108	David Andrews MW 2:00pm - 2:50pm W 11:00am - 11:50am	Seats (Total: 18) SPH 1312 ATL 1434	Discussion
FC01	Brandon Wallace MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) ATL 2428	

KNES289 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of department.

Contact department for information to register for this course.

KNES289B **Topical Investigations; Baseball: The National Pastime(?)**

Credits: 3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Examines the place of baseball in American society from historical, geographical, economic, and sociological perspectives.

0101	Michael Friedman	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	CSI 3120

KNES289L **Topical Investigations; Golf for Business and Life**

Credits: 3

Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Students must pay a $50.00 Facility fee. This course gives students the oppurtunity to learn the basics of the golf swing, etiquette, and most importantly, how to use golf as a business tool regardless of their chosen careers. Kinesiology majors may use this course to fulfill one physical activity course from the Golf category.

0101	Jeff Maynor	Seats (Total: 20)
	TuTh 3:30pm - 5:30pm	SPH 0227

KNES289P **Topical Investigations; Mathematical & Physical Bases of Human Movement & Performance**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Knowledge in basic mathematics, physical laws, and statistics provide tools for kinesiologists and exercise scientists to quantify, analyze, and evaluate human movements for efficiency, effectiveness, and safety. This course is designed to provide students with knowledge and practices in basic mathematics, physics, and statistics specifically in relation to human movements and performance. Upon successful completion, this course is expected to better prepare students for the science Core courses required for Kinesiology majors (e.g., KNES300, KNES360, KNES370, and KNES385).

0101	Jae Kun Shim	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

KNES300 Biomechanics of Human Motion

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

Students must pay a $75 lab fee.

0101	Ross Miller MW 3:00pm - 4:15pm Tu 8:00am - 9:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0102	Ross Miller MW 3:00pm - 4:15pm Tu 10:00am - 11:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0103	Ross Miller MW 3:00pm - 4:15pm Tu 12:00pm - 1:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0104	Ross Miller MW 3:00pm - 4:15pm Tu 2:00pm - 3:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0105	Ross Miller MW 3:00pm - 4:15pm Th 8:00am - 9:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0106	Ross Miller MW 3:00pm - 4:15pm Th 10:00am - 11:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0107	Ross Miller MW 3:00pm - 4:15pm Th 12:00pm - 1:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab

0108	Ross Miller	Seats (Total: 16)	
	MW 3:00pm - 4:15pm	SPH 1312	
	Th 2:00pm - 3:50pm	SPH 0223	Lab

KNES300H **Biomechanics of Human Motion**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201. And 1 course with a minimum grade of C- from (MATH112, MATH113, MATH115); or (must have completed one General Education: Fundamental Studies-Math course with a minimum grade of C-; and must have math eligibility of MATH140 or higher). Recommended: PHYS121. Restriction: Must be in a major within SPHL-Kinesiology department.

The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

This section is restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Ross Miller	Seats (Total: 4)
	MW 3:00pm - 4:15pm Contact instructor or department for details.	SPH 1312

KNES305 **Principles & Application of Exercise Rehabilitation**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin	Seats (Total: 30)
	TuTh 8:00am - 9:15am	SPH 1302

KNES305H **Principles & Application of Exercise Rehabilitation**

Credits: 3

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from (KNES300, KNES350, KNES360, KNES370, KNES385). Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498T or KNES305. Formerly: KNES498T.

In-depth analysis of the basic principles of rehabilitation and exercise programming for common injuries encountered in a clinical setting. Basic assessment techniques, ranges of motion, muscular anatomy, rehabilitative protocols, and exercise modalities are a major focus.

0101	Larry Plotkin	Seats (Total: 3)
	TuTh 8:00am - 9:15am	SPH 1302

KNES306 **Prosthetics for Limb Amputations**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201, BSCI202, and KNES300. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES306 or KNES498W. Formerly: KNES498W.

Introduction to the science of prosthetics and the artificial devices that are designed, developed and fit to replace the missing body part or parts lost through trauma, disease or congenital conditions.

0101	Ian Fothergill	Seats (Total: 32)
	Tu 8:00am - 10:30am	BPS 1228

KNES320 **Physiological Basis of Physical Activity and Human Health**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202. Restriction: Must be in Public Health Science program. Credit only granted for: KNES360 or KNES320.

A study of the responses and chronic adaptations to physical activity and exercise, with particular emphasis on the interaction between human health and physical activity. The laboratory component of course will focus on the assessment of physical activity and measurement of physiological adaptations to exercise. Students are expected to gain an understanding and appreciation for the benefits of physical activity and exercise in the context of public health.

Students must pay a $75 lab fee.

0101	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs	ONLINE	
	Th 4:00pm - 5:15pm	PHY 1410	
	M 12:00pm - 1:50pm	SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		

0102	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm M 2:00pm - 3:50pm	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
0103	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 8:00am - 9:50am	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
0104	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 10:00am - 11:50am	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
0105	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 12:00pm - 1:50pm	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
0106	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm W 2:00pm - 3:50pm	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
0107	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm F 10:00am - 11:50am	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		

0108	Jeffrey Beans	Seats (Total: 18)	
	Class time/details on ELMs Th 4:00pm - 5:15pm F 12:00pm - 1:50pm	ONLINE PHY 1410 SPH 0125	Lab
	Restricted to College Park students in the Public Health Science major.		
ESG1	Noah Gibson	Seats (Total: 22)	
	Class time/details on ELMs M 1:30pm - 3:20pm	ONLINE BLD4 2328	Lab
	Restricted to Shady Grove students in the Public Health Science major.		
ESG2	Noah Gibson	Seats (Total: 22)	
	Class time/details on ELMs W 1:30pm - 3:20pm	ONLINE BLD4 2328	Lab
	Restricted to Shady Grove students in the Public Health Science major.		

KNES332 **Exercise Testing & Prescription for Fitness Professionals**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman	Seats (Total: 25)
	WF 8:00am - 9:50am	SPH 0302

KNES332H **Exercise Testing & Prescription for Fitness Professionals**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES332 or KNES389G. Formerly: KNES389G.

Practical applications of exercise physiology and psychology to target fitness instruction for the general adult population Includes discussion of certification standards and professional development as well as evaluation of program safety and current trends.

0101	Jo Zimmerman	Seats (Total: 2)
	WF 8:00am - 9:50am	SPH 0302

KNES346 **Sport for Development**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Must have earned a minimum grade of C- in KNES287. Recommended: KNES485. Restriction: Must be a major within the SPHL-Kinesiology department and must have earned a minimum of 75 credits. Credit only granted for: KNES389D or KNES346. Formerly: KNES389D.

Examines how sport-based programs and organizations are used by governments, multinational corporations, and non-government organizations (NGO's) to reach personal, community, national and international development objectives; focuses on theorizing the histories of international development and contemporary global issues; contextualizes the interrelationship of theory, institutions, and practices of domestic and international sport for development and peace programing.

0101	Ronald Mower W 10:00am - 12:30pm	Seats (Total: 28) ATL 1114

KNES347 **Sport Economics**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355, ECON111, and ECON200. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES347 or KNES389I. Formerly: KNES389I.

Examines sport as a diverse cultural form through which physical activity is organized, regulated, and consumed within contemporary society. Evaluation of the complex interactions between sport culture economic institutions and forces.

0101	Michael Friedman MW 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 32) SPH 0308 ONLINE

KNES350 **The Psychology of Sports & Exercise**

Credits: 3 Grading Method: Regular, Pass-Fail General Education: DSHS

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

Restricted to students with a minimum of 45 credit or greater.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 40) SPH 1312

0102	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 30) SPH 1312
0103	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 40) SPH 1303
0104	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 27) SPH 1303

KNES350H **The Psychology of Sports & Exercise**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Restriction: Must have earned a minimum of 45 credits.

An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

This section is restricted to students who have been admitted in the Kinesiology Honors program.

0101	Elizabeth Brown TuTh 2:00pm - 3:15pm	Seats (Total: 3) SPH 1312
0102	Jay Goldstein TuTh 9:30am - 10:45am	Seats (Total: 3) SPH 1303

KNES355 **Sport Management**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 27) SPH 0305

KNES355H **Sport Management**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES355 or KNES498M.

Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

0101	Stephen McDaniel TuTh 12:30pm - 1:45pm	Seats (Total: 3) SPH 0305	

KNES360 Physiology of Exercise

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

Students must pay a $75 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Tu 8:00am - 9:50am *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0102	Steven Prior MWF 12:00pm - 12:50pm Tu 10:00am - 11:50am *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0103	Steven Prior MWF 12:00pm - 12:50pm Tu 12:00pm - 1:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0104	Steven Prior MWF 12:00pm - 12:50pm Tu 2:00pm - 3:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab

0105	Steven Prior MWF 12:00pm - 12:50pm Th 8:00am - 9:50am	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0106	Steven Prior MWF 12:00pm - 12:50pm Th 10:00am - 11:50am *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0107	Steven Prior MWF 12:00pm - 12:50pm Th 12:00pm - 1:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab
0108	Steven Prior MWF 12:00pm - 12:50pm Th 2:00pm - 3:50pm *Restricted to students in the Kinesiology major (code:08351).*	Seats (Total: 16) SPH 1312 SPH 0125	Lab

KNES360H **Physiology of Exercise**

(Perm req)

Credits: 4

Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI202 and BSCI201; or permission of SPHL-Kinesiology department. Restriction: Must be in one of the following programs (Kinesiology; Public Health Science).

A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

This section is restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Steven Prior MWF 12:00pm - 12:50pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312	

KNES370 **Motor Development**

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

0101	Tim Kiemel MW 1:00pm - 1:50pm M 8:00am - 8:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0102	Tim Kiemel MW 1:00pm - 1:50pm M 9:00am - 9:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0103	Tim Kiemel MW 1:00pm - 1:50pm M 10:00am - 10:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0104	Tim Kiemel MW 1:00pm - 1:50pm M 11:00am - 11:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0105	Tim Kiemel MW 1:00pm - 1:50pm W 8:00am - 8:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0106	Tim Kiemel MW 1:00pm - 1:50pm W 9:00am - 9:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0107	Tim Kiemel MW 1:00pm - 1:50pm W 10:00am - 10:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab
0108	Tim Kiemel MW 1:00pm - 1:50pm W 11:00am - 11:50am	Seats (Total: 18) HJP 0226 SPH 0223	 Lab

KNES370H **Motor Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Restriction: Must be in a major within SPHL-Kinesiology department.

Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

This section is restricted to students who have been admitted in the Kinesiology Honors program.

0101	Tim Kiemel MW 1:00pm - 1:50pm Contact instructor or department for details.	Seats (Total: 3) HJP 0226

KNES385 Motor Control and Learning

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201; and a minimum grade of C- in the KNES program's Math Requirement (e.g. MATH113, 115, 140). Recommended: PHYS121 or KNES289P. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

Students must pay a $75 lab fee.

0101	Rodolphe Gentili TuTh 12:30pm - 1:45pm M 12:00pm - 1:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0102	Rodolphe Gentili TuTh 12:30pm - 1:45pm M 2:00pm - 3:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0103	Rodolphe Gentili TuTh 12:30pm - 1:45pm W 12:00pm - 1:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0104	Rodolphe Gentili TuTh 12:30pm - 1:45pm W 2:00pm - 3:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab

0106	Rodolphe Gentili TuTh 12:30pm - 1:45pm F 10:00am - 11:50am	Seats (Total: 16) SPH 1312 SPH 0223	 Lab
0108	Rodolphe Gentili TuTh 12:30pm - 1:45pm F 2:00pm - 3:50pm	Seats (Total: 16) SPH 1312 SPH 0223	 Lab

KNES385H **Motor Control and Learning**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201; and a minimum grade of C- in the KNES program's Math Requirement (e.g. MATH113, 115, 140). Recommended: PHYS121 or KNES289P. Restriction: Must be in a major within SPHL-Kinesiology department.

This introductory course investigates how humans control and adapt their movements to perform and learn a variety of motor skills, ranging from activities of daily living to elite athlete performance. This course examines the underlying cognitive, sensory and motor processes of control and adaptation of human movements both at the behavioral and neurophysiological levels. Relevant applications to movement rehabilitation as well as performance optimization are employed to illustrate the concepts discussed in class. The cognitive, sensory and motor mechanisms underlying motor control are explored first and then in a motor learning context.

This section is restricted to students who have been admitted in the Kinesiology Honors program. Students must pay a $75 lab fee.

0101	Rodolphe Gentili TuTh 12:30pm - 1:45pm Contact instructor or department for details.	Seats (Total: 4) SPH 1312

KNES389 **Topical Investigations**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department. This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES389K **Topical Investigations; Kinesiology Internship**

(Perm req)

Credits: 3 Grading Method: Regular

Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

Prerequisite: permission of instructor and department.

Contact department for information to register for this course.

KNES405 **Principles & Techniques of Manual Muscle Testing**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Joanne Klossner, Larry Plotkin	Seats (Total: 18)
	TuTh 12:30pm - 1:45pm	SPH 0116A

KNES405H **Principles & Techniques of Manual Muscle Testing**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI201 and BSCI202; and 1 course with a minimum grade of C- from Kinesiology core courses at the 300-level or higher. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

It is critical for sports medicine and sport performance specialists to understand the location and inter-relationships of the structures of the body that impact human movement. Thus, the primary purpose of this course is to facilitate an in-depth, understanding of the muscles of the body. Specifically, students will learn the origins, insertions, primary and secondary functions, as well as nervous innervations of the major muscle groups of the body. In addition, students will develop palpation skills and learn to grade the function of each muscle through manual muscle testing techniques. These skills form the foundation for assessing functional movement as well as performing safe and effective manual therapy techniques. Thus, while the focus of the class will be to develop sound, introductory palpation and manual muscle testing skills, basic principles of functional movement and manual therapy will also be addressed through hands-on application as well as case study.

0101	Joanne Klossner, Larry Plotkin	Seats (Total: 2)
	TuTh 12:30pm - 1:45pm	SPH 0116A

KNES440 **Psychology of Athletic Performance**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498P, KNES689Z, or KNES440.

Examines the psychological factors, mechanisms, and processes in athletic performance. Utilizes a social psychological approach to focus on the study and review of individual performance in both the interpersonal and social context.

0101	Seppo Iso-Ahola	Seats (Total: 30)
	M 4:00pm - 6:30pm	SPH 1303

KNES440H **Psychology of Athletic Performance**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498P, KNES689Z, or KNES440.

Examines the psychological factors, mechanisms, and processes in athletic performance. Utilizes a social psychological approach to focus on the study and review of individual performance in both the interpersonal and social context.

This section is restricted to students who have been admitted in the Kinesiology Honors program.

0101	Seppo Iso-Ahola	Seats (Total: 3)
	M 4:00pm - 6:30pm	SPH 1303

KNES445 **Exercise and Brain Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498C or KNES445. Formerly: KNES498C.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

0101	J Carson Smith	Seats (Total: 24)
	TuTh 9:30am - 10:45am	SPH 0121

KNES445H **Exercise and Brain Health**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES498C or KNES445. Formerly: KNES498C.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

0101	J Carson Smith	Seats (Total: 3)
	TuTh 9:30am - 10:45am	SPH 0121

KNES451 **Children and Sport: A Psychosocial Perspective**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	CCC 1200

KNES451H **Children and Sport: A Psychosocial Perspective**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in KNES350. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 90 credits.

Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

0101	Elizabeth Brown	Seats (Total: 1)
	TuTh 11:00am - 12:15pm	CCC 1200

KNES457 **Managing Youth Programs: Educational, Fitness and Sport**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES350 and KNES370. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits. Credit only granted for: KNES457 or KNES498Y.

An examination of the basic functions involved in managing physical education, fitness, and youth sports programs. Focus on leadership skills, organizational management, and techniques for applying learned skills in a variety of organizational settings that serve the nation's youth.

0101	Jay Goldstein	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	SPH 0305

KNES464 **Exercise Metabolism: Role in Health and Disease**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

Prerequisite: KNES360 with a C- or better

0101	Sarah Glancy	Seats (Total: 25)
	TuTh 9:30am - 10:45am	SPH 0307

KNES464H **Exercise Metabolism: Role in Health and Disease**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in KNES360. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES464 or KNES498L.

Examines the role of metabolism in kinesiology, especially as it relates to physical inactivity, health and disease. Includes bioenergetics, substrate utilization, cell signaling, and metabolic gene expression and their impact on chronic health conditions or disease.

Prerequisite: KNES360 with a C- or better

0101	Sarah Glancy	Seats (Total: 3)
	TuTh 9:30am - 10:45am	SPH 0307

KNES465 **Physical Activity and Disease Prevention and Treatment**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES465 or KNES498A.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ATL 1434

KNES465H **Physical Activity and Disease Prevention and Treatment**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (KNES320, KNES360). Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES465 or KNES498A.

Critically examines the scientific evidence that supports the use of physical activity to prevent and treat age-related diseases, including cardiovascular disease, diabetes, abnormal lipoprotein-lipid levels, hypertension, obesity, osteoporosis and cancer.

0101	Sushant Ranadive	Seats (Total: 3)
	TuTh 11:00am - 12:15pm	ATL 1434

KNES474 **Quantitative Methods in Cognitive Motor Behavior - MATLAB**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH115 or equivalent; or permission of Kinesiology department. Recommended: MATH240. Restriction: Must have earned a minimum of 75 credits. Credit only granted for: KNES498Q or KNES474. Formerly: KNES498Q.

Includes basic computer programming, algorithm, and quantitative techniques for time-series data with an emphasis on, but not limited to, human movement. These topics will be taught using MATLAB, a programming language and environment for numerical computation, data analysis, and visualization.

0101	Hyuk Oh	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	ATL 1113

KNES476 **Honors Thesis Proposal**

(Perm req)

Credits: 3 Grading Method: Regular

Corequisite: KNES478. Restriction: Must be a KNES Honors student; and senior standing. Credit only granted for: KNES476 or KNES498R.

Development of honors thesis proposal based on preliminary research and literature review. Presentation of formal proposal to the thesis committee and fellow honors students.

0101	Tim Kiemel F 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 20) SPH 0303 ONLINE

KNES478 **Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Guided discussion of research topics of current interest.

Continuing KNES Honors Students must enroll in KNES478 every semester they are in the program.

0101	Tim Kiemel F 11:00am - 11:50am	Seats (Total: 20) SPH 0303

KNES483 **Sport Marketing and Media**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 25) ATL 1109

KNES483H **Sport Marketing and Media**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in KNES287. Recommended: KNES355. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

0101	Stephen McDaniel TuTh 3:30pm - 4:45pm	Seats (Total: 3) ATL 1109

KNES485 **Sport and Globalization**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Prerequisite: Minimum grade of C- in KNES287. Restriction: Must be in a major within the SPHL-Kinesiology department; and must have earned a minimum of 75 credits.

Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

0101	Ronald Mower	Seats (Total: 28)
	Class time/details on ELMs W 1:00pm - 1:50pm	ONLINE CCC 1200

KNES497 **Kinesiology Senior Seminar**

(Perm req)

Credits: 3 Grading Method: Regular CORE: CS General Education: DSSP

Prerequisite: A professional writing course with a minimum grade of C-; and must have completed 6 KNES core courses and 2 KNES option courses, all with a C- or higher; and must have completed STAT100 with a C- or better. Restriction: Senior standing or higher; and must be in Kinesiology program; and permission of department.

Discussions of contemporary issues vital to the discipline, critiques of research in the student's area/areas of special interest, completion of a major project where the student will be asked to demonstrate the ability to carry out investigative processes in problem solving and critical writing under faculty direction.

Students may not be eligible to add or change their section if they did not attend class during schedule adjustment.

Click here for more information.

0103	James Hagberg	Seats (Total: 16)
	Th 8:00am - 10:30am	SPH 0301
	Physical Activity and the Obesity and Diabetes Epidemic	
0110	Jay Goldstein	Seats (Total: 16)
	TuTh 2:00pm - 3:15pm	SPH 0305
	Applied Sport and Exercise Psychology for Practitioners.	

KNES498 **Special Topics in Kinesiology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest in areas not covered by regularly scheduled courses.

This class does NOT fulfill a KNES Options Requirement.

Contact department for information to register for this course.

KNES609 **Research Issues in Kinesiology**

(Perm req) Credits: 1 Grading Method: Regular

Issues, methodologies, and critical analyses of current research in Kinesiology.

Contact department for information to register for this course.

KNES616 Physical Cultural Studies

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: KNES616 or KNES689B. Formerly: KNES689B.

Provides an introduction to the derivation, elements, focus, and future of the Physical Cultural Studies project, specifically related to the empirical, theoretical, methodological, and axiological aspects of Physical Cultural Studies.

0101	David Andrews M 4:00pm - 6:30pm	Seats (Total: 15) SPH 0303

KNES618 Current Readings in Exercise and Applied Physiology

Credits: 1 Grading Method: Regular, Audit

Student-led presentations of contemporary literature in the areas of genetics, exercise science, fitness and health. Emphasis on papers describing new research findings, novel techniques, innovative methods, and emerging issues.

0101	Sushant Ranadive F 1:00pm - 1:50pm	Seats (Total: 15) SPH 0301

KNES622 Teaching Secondary Physical Education

(Perm req) Credits: 3 Grading Method: Regular, Audit

Restriction: Must be enrolled in PreK-12 Physical Education Master of Education program. Credit only granted for: KNES689I OR KNES622. Formerly: KNES689I.

Students will learn aspects of teaching secondary physical education including: characteristics of secondary school students, testing, grading, teaching lifetime activities, and effective teaching techniques using SHAPE America Standards.

IH60	Cara Grant Tu 4:30pm - 7:30pm	Seats (Total: 20) SPH 0121

KNES645 Exercise and Brain Health

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in KNES350; or students who have taken courses with comparable content may contact the department. Credit only granted for: KNES645 or KNES689X. Formerly: KNES689X.

Examines the evidence for exercise to affect brain function and brain health in children, in adults, and in old age. Covers the adaptations to acute and chronic exercise within brain networks related to emotion, stress reactivity, memory, and executive function, and the effectiveness of physical activity and exercise as treatments for depression, anxiety disorders, and cognitive impairment.

0101	J Carson Smith	Seats (Total: 3)
	TuTh 9:30am - 10:45am	SPH 0121

KNES660 **Psychology of Athletic Performances**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: KNES350. Credit only granted for: KNES660 or KNES689Z. Formerly: KNES689Z.

Psychological factors, mechanisms, and processes in athletic performance. The basic approach is social psychological, according to which the focus is on individual performance in the interpersonal athletic context. Intrapersonal and interpersonal factors and their effects on athletic performance. Psychology of peak performance, choking, and errors of mental control. Analysis of the general principles and types of mental training.

0101	Seppo Iso-Ahola	Seats (Total: 30)
	M 4:00pm - 6:30pm	SPH 1303

KNES674 **Quantitative Methods in Cognitive Motor Behavior**

Credits: 3 Grading Method: Regular, Audit

Recommended: Proficiency in Precalculus and Linear Algebra or permission of department. Credit only granted for: KNES689R or KNES674. Formerly: KNES689R.

Includes basic computer programming, algorithm, and quantitative techniques for time- series data with an emphasis on, but not limited to, human movement. These topics will be taught using MATLAB, a programming language and environment for numerical computation, data processing, analysis, and visualization.

0101	Hyuk Oh	Seats (Total: 10)
	TuTh 3:30pm - 4:45pm	ATL 1113

KNES678 **Professional Seminar for Teacher Development in Physical Education**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The spring seminar course is an extension of the fall seminar course and spring internship course. It accompanies a full time undergraduate level teaching internship and is intended to support and extend students' field experience learning. The spring seminar course is designed to continue to provide students with the support they need to successfully meet the College of Education's Middle School Mathematics and Science programmatic requirements and the Maryland State Department of Education's Middle School Mathematics and Science Teacher Certification Requirements. These requirements include demonstrating mastery on all of the College of Education's Foundational Competencies (FCCs) and Performance Based Assessments (PBAs) and the national edTPA, InTASC, and AMLE Standards.

IH60	Cara Grant	Seats (Total: 20)
	M 4:00pm - 6:30pm	ONLINE

KNES689 **Special Problems in Kinesiology**

(Perm req)

Credits: 1-6 Grading Method: Regular

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Contact department for information to register for this course.

KNES689P **Special Problems in Kinesiology; Mechanical Analysis of Human Movement**

Credits: 3 Grading Method: Regular, Audit

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

0101	Ross Miller	Seats (Total: 15)
	Th 4:00pm - 6:30pm	SPH 0303

KNES689T **Special Problems in Kinesiology; Teaching Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Master or doctoral candidates who desire to pursue special research problems under the direction of their advisor may register for 1-6 hours of credit under this number.

Outreach Secondary MCERT- KNES. Departmental permission required. Students are required to pay a course fee; refer to program materials for details.

Contact department for information to register for this course.

KNES751 **Advanced Neuromechanics**

Credits: 3 Grading Method: Regular, Audit

Recommended: Undergraduate-level biomechanics and motor control or equivalents. Credit only granted for: KNES751 or KNES789A. Formerly: KNES789A.

Covers the neurophysiological mechanisms relevant to the processes of generating voluntary movements. The course promotes independent thinking of students and enhances knowledge of basic facts about the design of cells, muscles, neuronal structures, and the whole body for the understanding of typical and atypical movement production related to the nervous system and the functioning brain.

0101	Jae Kun Shim	Seats (Total: 15)
	W 4:00pm - 6:30pm	SPH 0223

KNES778 **Internship in Physical Activity and Public Health**

Credits: 1-4 Grading Method: Regular

The practical experience is a time-limited, supervised period of public/community health activities carried out in a health or allied health organization involved with physical activity. Students gain practical experience in areas such as program planning and implementation, program evaluation, public policy analysis, research, and management.

0101	Shannon Jette	Seats (Total: 10)
	Contact instructor or department for details.	

KNES786 **Capstone Project in Physical Activity and Public Health**

Credits: 3 Grading Method: Regular

Prerequisite: KNES600, KNES601, and KNES602.

The culminating experience in which the student applies knowledge and skills learned in the MPH program to conduct independent work on a physical activity problem under the supervision of a faculty advisor.

0101	Shannon Jette, Andrea Liberto	Seats (Total: 10)
	Contact instructor or department for details.	

KNES789 **Advanced Projects in Kinesiology**

(Perm req)

Credits: 1-3 Grading Method: Regular

Advanced projects examining current problems and trends in kinesiology.

Contact department for information to register for this course.

KNES799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KNES898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

KNES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

KORA Korean Fall 2022

KORA101 **Elementary Korean I**

Credits: 3 Grading Method: Regular

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score; and permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must be a non-Heritage student with no background in Korean.

Introduction to the Korean language. Primary emphasis on oral skills, but Hangul, the Korean alphabet, will also be introduced.

0101	Seong Minne Koh MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1226
0201	Seong Minne Koh MWF 2:00pm - 2:50pm	Seats (Total: 15) JMZ 2120

KORA201 **Intermediate Korean I**

Credits: 3 Grading Method: Regular CORE: HO

Prerequisite: KORA102; or permission of instructor.

An intermediate-level course designed for non-Heritage students. It begins the second year of instruction in the University's two-track Korean Program.

0101	Seong Minne Koh MWF 11:00am - 11:50am	Seats (Total: 15) JMZ 1226
0201	Seong Minne Koh MWF 1:00pm - 1:50pm	Seats (Total: 15) JMZ 2120

KORA398M **Special Topics in Korean Studies; Korean Language & Contemporary Pop Culture**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Iowa, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA **Meets August 22, 2022 - December 9, 2022** TuTh 10:30am - 11:45am	Seats (Total: 10) JMZ 1205

KORA398N **Special Topics in Korean Studies; Korean Food Cultures: Past and Present**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Wisconsin, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA **Meets September 7, 2022 - December 14, 2022** TuTh 10:30am - 11:45am	Seats (Total: 10) ONLINE

KORA398W **Special Topics in Korean Studies; Advanced Korean Through Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Study of particular aspect of Korean language, literature, and/or culture. Topic and language of instruction to be announced when course is offered.

Improving Korean Language skills through exploration of Korean culture. Topics include Korean history, art, music and food culture.

0101	Seong Minne Koh TuTh 2:00pm - 3:15pm	Seats (Total: 15) ONLINE

KORA499 **Independent Study Korean**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent study under faculty supervision.

Contact department for information to register for this course.

LACS Latin American and Caribbean Studies Fall 2022

LACS234 **Issues in Latin American and Caribbean Studies I**

Credits: 3 Grading Method: Regular General Education: DSHS, DSHU, DVUP

Cross-listed with: PORT234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0103
0102	Carolina Sampo TuTh 2:00pm - 3:15pm	Seats (Total: 30) VMH 1207

LACS234H **Issues in Latin American and Caribbean Studies I**

Credits: 3 | Grading Method: Regular | General Education: DSHS, DSHU, DVUP

Cross-listed with: PORT234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 5) KEY 0103

LACS250 **History of Colonial Latin America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: HIST250. Credit only granted for: LASC250, HIST250, OR LACS250. Formerly: LASC250.

Introductory survey of the history of Latin America from pre-Columbian Indian cultures to the beginning of the wars for independence (ca. 1810), covering cultural, political, social, and economic developments. Major themes include conquest, colonialism, indigenous culture, African slavery, religion, race and ethnicity, and gender ideologies.

0101	David Sartorius TuTh 12:30pm - 1:45pm	Seats (Total: 40) KEY 0116

LACS348C **Special Topics in Latin American and Caribbean Studies; Digital Publishing with Minimal Computing: Humanities at a Global Scale**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topics to be announced when offered.

Cross-listed with CMLT398M, ENGL378M, and MITH301. Credit granted for MITH301, CMLT398M, ENGL378M, or LASC348C.

0101	Raffaele Viglianti W 12:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 15) HBK 03101 ONLINE

LACS458 **Senior Capstone Course in Latin American and Caribbean Studies**

Credits: 3 Grading Method: Regular

Capstone course for advanced students in the Latin American and Caribbean Studies Certificate Program or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

0101	Carolina Sampo TuTh 9:30am - 10:45am	Seats (Total: 10) HJP 4120

LACS486 **Internship in Latin American/Caribbean Studies**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail

Prerequisite: Student must have completed at least two LACS courses, one of which must be a required/core course (LACS/SPAN234, LACS/SPAN235, LACS/HIST250, or LACS/HIST251); and permission of Latin American Studies Center required. Restriction: Minimum cumulative GPA of 2.5; and must have earned a minimum of 60 credits. Credit only granted for: LASC486 OR LACS486. Formerly: LASC486. Additional information: The course is primarily intended for students seeking the Certificate in Latin American and Caribbean Studies, but exceptions will be considered for students with educational or career interests which lie in this area. Student internships must be approved by the Director, and students must secure an appropriate faculty mentor for the internship course. An internship course will be approved only if a faculty supervisor is available.

Internship experience with an organization that works with or studies Latin American and/or the Caribbean. This is an experiential learning course that provides semester-long training that enriches the student's academic field of study and the LACS Certificate. Students submit a final written report of their experience, including critical analysis of the institutional relevance to their major field of study and to Latin American and Caribbean Studies. Students will also be asked to give an oral presentation.

Contact department for information to register for this course.

LACS609 **Colloquium in Latin American and Caribbean Studies**

Credits: 1 Grading Method: Regular, Audit

The colloquium is one of three core courses for the Graduate Certificate in Latin American and Caribbean Studies. Providing 3 credits over the course of multiple semesters (1-2 credits per semester), it ensures an ongoing intellectual community among students, faculty, and guest scholars. For group discussions, the Colloquium meets four times per semester. Additionally, students attend Latin American and Caribbean activities and events in order to discuss and theorize about the region and its diaspora from informed perspectives. Each semester's colloquium provides 1-2 credits toward the Graduate Certificate.

The Colloquium will ensure an ongoing intellectual community among students, faculty, and guest scholars. The director of the Center and students will meet to discuss readings and occasional presentations by aguest speaker. Students will also present their work for feedback. With the assistance of the Director, students are invited to play an essential role in the planning and structuring of the Colloquium. This themed colloquium (the theme will change each year) will meet four times per semester

0101	Isabella Alcaniz	Seats (Total: 16)
	F 12:00pm - 1:30pm	HJP 3120

LACS648M **Special Topics in Latin American and Caribbean Studies; Digital Publishing with Minimal Computing: Humanities at a Global Scale**

Credits: 3 Grading Method: Regular, Audit

Intensive study of a selected topic related to Latin America, the Caribbean, or Latina/o Studies.

Cross-listed with MITH628C. Credit only granted for MITH301, MITH628C, or LACS648M. In this Global Classrooms course, students of the University of Maryland and Universidad del Salvador, Buenos Aires, will come together to learn how to create and assess websites from a critical and humanities-focused perspective. Specifically, the course will introduce "minimal computing" approaches, which privilege the use of open technologies, ownership of data and code, reduction in computing infrastructure and, consequently, environmental impact. The course is structured around a group project with students from both universities. You will collaborate virtually to create a multilingual (Spanish and English) digital edition of a colonial era text, while learning about Digital Humanities approaches to literary studies, digital publishing, history, and postcolonial studies.

0101	Raffaele Viglianti	Seats (Total: 10)
	W 12:00pm - 2:50pm Class time/details on ELMs	HBK 03101 ONLINE

LACS688 **Experiential Learning in Latin American and Caribbean Studies**

Credits: 1-3 Grading Method: Regular, Audit

Offers an opportunity for practical experience of Latin American and Caribbean organizations, to supplement a methodological focus. Credits may be fulfilled with internships, an applied research assistantship, or any program outside the University that focuses on the experiences of Latin America, the Caribbean, and related diasporas. Examples of experiential learning may include internships at organizations such as the Pan American Health Organization, the World Bank, the Washington Office on Latin America (WOLA), or Casa de Maryland.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LACS689 **Research Praxis in Latin American and Caribbean Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The concentration in research praxis is intended primarily to serve students who are interested in academic research and teaching in Latin American and Caribbean studies by exposing them to a research experience supervised by an affiliate faculty member in Latin American and Caribbean studies. This might be a 3-credit intensive research seminar or independent studies tutorial involving a major research project or a 1-3 credit research assistantship in Latin American and Caribbean studies.

0101	Isabella Alcaniz	Seats (Total: 3)
	Contact instructor or department for details.	

LARC Landscape Architecture Fall 2022

LARC121 **Computer Visualization in Design**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Students are provided with the opportunity to 1) explore basic design principles and practice, 2) explore and apply computer concepts and principles, 3) learn and apply basic computer tools used in landscape architecture and allied disciplines, and 4) demonstrate competency in design vocabulary and computer applications through demonstrated deliverables used in the built environment design fields.

FC01	Jessica Baker	Seats (Total: 18)
	Tu 7:30pm - 8:45pm Th 7:30pm - 8:45pm	PLS 2137 ONLINE
	Restricted to students in Freshmen Connection.	

LARC141 **Design Fundamentals Studio**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: LARC140. Recommended: Concurrently enrolled in LARC263. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and sophomore standing or higher; and must be in Landscape Architecture program.

Fundamentals of basic design focusing on creative problem solving associated with landscape architecture.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Jueminsi Wu MW 2:00pm - 3:15pm MW 3:30pm - 4:50pm	Seats (Total: 15) PLS 2152 PLS 2152	 Lab

LARC151 **Urban Agriculture: Designing and Assessing Edible Landscapes**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

Students will examine the growing development of urban agriculture and edible landscapes. Urban agriculture has seen a recent growth and interest in cities across the globe. From Paris to New York, from Baltimore to Detroit, urban agriculture is an emerging land use to address a variety of needs. Redevelopment, food deserts, community engagement and environmental justice are just some of the issues and topics that are connected to the recent growth of urban agriculture. This course will take a critical examination of urban agriculture's contribution to the food system, its input and outputs in the urban landscape, and the planning and design of urban agriculture and edible landscapes.

0101	Deni Ruggeri MW 11:00am - 11:50am M 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0102	Deni Ruggeri MW 11:00am - 11:50am M 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0103	Deni Ruggeri MW 11:00am - 11:50am W 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0104	Deni Ruggeri MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2204 PLS 1164	 Discussion
0105	Deni Ruggeri MW 11:00am - 11:50am M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2204 PLS 1119	 Discussion
0106	Deni Ruggeri MW 11:00am - 11:50am M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2204 PLS 1158	 Discussion

FC01	Sherry Russell W 7:30pm - 8:45pm M 7:30pm - 8:45pm	Seats (Total: 18) PLS 1130 ONLINE	
	Restricted to students in Freshmen Connection.		

LARC160 Introduction to Landscape Architecture and Environmental Design

Credits: 3 Grading Method: Regular CORE: HO General Education: DSHU, DSSP

History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences. Topics include urban, ecological, community and creative design.

0101	Jueminsi Wu MW 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2204 PLS 1113	Discussion
0102	Jueminsi Wu MW 12:00pm - 12:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2204 PLS 1113	Discussion
0103	Jueminsi Wu MW 12:00pm - 12:50pm M 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2204 PLS 1146	Discussion
0104	Jueminsi Wu MW 12:00pm - 12:50pm W 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2204 PLS 1111	Discussion
0105	Jueminsi Wu MW 12:00pm - 12:50pm W 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2204 PLS 1111	Discussion
0106	Jueminsi Wu MW 12:00pm - 12:50pm M 4:00pm - 4:50pm	Seats (Total: 20) ESJ 2204 PLS 1111	Discussion
FC01	Colleen Vacelet MW 6:00pm - 7:15pm	Seats (Total: 18) PLS 1130	
	Restricted to students in Freshmen Connection.		

LARC265 Site Analysis and Ecological Principles

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: LARC141. Corequisite: LARC240 and LARC221. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department; and sophomore standing or higher; and must be in Landscape Architecture program. Credit only granted for: LARC265 or ARCH460.

Principles and methods of site analysis with an emphasis on the application of ecological principles in landscape architecture, architecture and planning.

0101	Thomas Mateya	Seats (Total: 20)	
	TuTh 9:30am - 10:45am	PLS 1158	

LARC320 Principles of Site Engineering

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: LARC221. Corequisite: LARC340. Restriction: Must be in Landscape Architecture program; and junior standing or higher.

The study and application of landscape construction principles as applied to grading, drainage, site layout, storm water management, and vehicular and pedestrian circulation.

0101	Shihua Wang	Seats (Total: 20)	
	Th 8:00am - 10:45am	PLS 2150	
	Tu 9:30am - 10:45am	PLS 2150	Lab

LARC340 Site Planning and Design Studio

(Perm req)

Credits: 5 Grading Method: Regular

Prerequisite: LARC221; and LARC240; and LARC265. Corequisite: LARC320. Restriction: Must be in Landscape Architecture program; and junior standing or higher.

An examination of the influence of landscape character and site features (natural and cultural) on landscape architecture, architecture and planning through application in the studio setting.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Byoung-Suk Kweon	Seats (Total: 17)	
	MW 1:00pm - 1:50pm	PLS 2150	
	MW 2:00pm - 4:50pm	PLS 2150	Lab

LARC389 Internship in Landscape Architecture

(Perm req)

Credits: 3 Grading Method: Regular

A supervised internship where students earn credit for work experience related to their career goals. Each student must keep a work log, work on a special project, and produce a report related to this project. An evaluation from the external supervisor of the project is required. Participation requires application to the internship advisor in the preceding semester.

Restriction: Permission of department. The deadline to request permission to sign-up for the course is 6/17/2022. See Dr. Mark Carroll for more information. There will be two required real-time sessions, time to be determined. A supervised internship where students earn credit for work experience related to their career goals. Each student must keep a work log, work on a special project, and produce a report related to this project. An evaluation from the external supervisor of the project is required. Participation requires application to the internship advisor in the preceding semester.

0101	Mark Carroll	Seats (Total: 15)
	Meets July 6, 2022 - November 2, 2022	
	Class time/details on ELMs	ONLINE

LARC420 **Professional Practice**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: LARC321. Restriction: Must be in Landscape Architecture program.

An introduction to and comparative study of the professional concerns of design firms. Focus on planning, legal, ethical, marketing and management considerations of interdisciplinary practices.

0101	Ronald Sessoms	Seats (Total: 30)
	Tu 9:30am - 12:15pm	PLS 1117

LARC440 **Urban Design Studio**

(Perm req)

Credits: 5 Grading Method: Regular

Prerequisite: LARC321; and LARC340; and LARC341. Restriction: Must be in Landscape Architecture program.

The landscape architect's role within the interdisciplinary urban design process, focusing on urban site design issues. Pedestrian friendly site design and the future of sustainable development will be studied.

Students must pay a $300.00 Landscape Architecture Fee.

0101	Jack Sullivan	Seats (Total: 17)	
	MW 1:00pm - 1:50pm	PLS 2148	
	MW 2:00pm - 4:50pm	PLS 2148	Lab

LARC452 **Green Infrastructure and Community Greening**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110 and PLSC111; or (PLSC112 and PLSC113); or permission of instructor. Restriction: Junior standing or higher. Credit only granted for: LARC489G or LARC452. Formerly: LARC489G.

A critical look and exploration of green infrastructure (GI) elements in the built environment in contributing to ecosystems services and the sustainability of the built environment. The course explores the science, issues, challenges, and the policy, planning and design solutions offered by green infrastructure.

0101	David Myers	Seats (Total: 20)	
	W 10:00am - 10:50am	PLS 1113	
	F 10:00am - 11:50am	PLS 1113	
	for LARC majors only or permission of instructor		

LARC470 **Landscape Architecture Seminar**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: LARC321; and LARC341. Corequisite: LARC440. Restriction: Senior standing; and must be in Landscape Architecture program.

A combination of self-directed study, seminar, and lecture formats. An introduction to aspects of research methods, critical analysis, and proposal writing with a focus on urban and community design.

0101	Caren Yglesias	Seats (Total: 13)	
	M 9:00am - 11:50am	PLS 1162	

LARC489R **Special Topics in Landscape Architecture; Fundamental Graphics**

(Perm req)

Credits: 3 Grading Method: Regular

Credit according to time scheduled and organization of course. A lecture and/or studio course organized as an in-depth study of a selected specialization of landscape architecture not covered by existing courses.

0101	Jueminsi Wu	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 2152	
	TuTh 12:30pm - 1:45pm	PLS 2152	Lab

LARC499 **Independent Studies in Landscape Architecture**

(Perm req)

Credits: 1-4 Grading Method: Regular

Independent studies in landscape architecture including field, studio or library research under the direction of a faculty member.

Contact department for information to register for this course.

LARC620 **Graphic Tools for Landscape Representation**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Corequisite: LARC640. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

This course integrates digital and analog methods of communication and provides an introduction to computer tools and techniques commonly used in landscape architecture practice. Non-drafting computer tools will be used to orient basic digital image capture, manipulation, and presentation formatting. Also includes techniques and application of various media for graphic communication associated with landscape architecture.

0101	Reza Mabadi	Seats (Total: 10)	
	TuTh 8:00am - 9:15am	PLS 1142	
	TuTh 9:30am - 10:45am	PLS 1142	Lab

LARC640 **Graduate Studio I**

(Perm req)

Credits: 5 Grading Method: Regular, Audit

Corequisite: LARC620. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Principles and techniques of design as applied to shaping the landscape; developing concepts in visual thinking, environmental awareness, and design intervention through studio exercises and projects.

Students must pay a $300.00 Graduate Studio Fee.

0101	Naomi Sachs	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 1142	
	TuTh 2:00pm - 4:50pm	PLS 1142	Lab

LARC642 **Graduate Studio III**

(Perm req)

Credits: 5 Grading Method: Regular, Audit

Prerequisite: LARC641. Corequisite: LARC670. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

A focus on the interaction of landscape science (hydrology, geology, etc.) with the necessities and mechanisms of human settlements (transportation, economics, etc.) emphasizing innovative and forward thinking solutions to urbanization and ecological problems. It will apply this knowledge to landscape analysis, recreational planning and design, and community development, emphasizing resource management, spatial organization, landscape character, and the physical and social structure of community services. This course will be required for both Trach 1 and Track 2 students.

Students must pay a $300.00 Graduate Studio Fee.

0101	Christopher Ellis	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2154	
	TuTh 2:00pm - 4:50pm	PLS 2154	Lab

LARC670 **Landscape Architecture Theory and Criticism**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Review and analysis of the body of literature concerning landscape architecture and relationships between humans and both natural and designed environments. Topics may include: rationalism, ethics, aesthetics, social and economic values, postmodernism, feminist, multiculturalism, ecological determinism, preservation/conservation, and sustainability and ecological design. Each week students will lead a debate and discussion on a theoretical issue based on the assigned readings for that week.

0101	Caren Yglesias	Seats (Total: 10)	
	M 9:00am - 11:50am	PLS 1162	

LARC699 **Independent Studies in Landscape and Architecture**

(Perm req)

Credits: 1-3

Grading Method: Regular

Individual Instruction course.

Contact department for information to register for this course.

LARC721 **Landscape Construction Methods and Materials**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: LARC720. Restriction: Permission of AGNR-Plant Science & Landscape Architecture department.

Basic methods of constructing landscapes and manipulating the appropriate plant and inorganic materials for the creation of ecologically sustainable environments for human use. An examination of the use, properties, and detailing of materials used in landscape construction.

0101	John Wray IV	Seats (Total: 10)	
	W 8:00am - 9:15am	PLS 2154	
	W 9:30am - 10:45am	PLS 2154	

LARC748 **Advanced Special Topics Studio**

Credits: 5

Grading Method: Regular, Audit

Advanced special topics comprehensive landscape architecture studio-exploration will focus on cultural, behavioral and ecological issues in the physical planning and design of urban landscapes.

Students must pay a $300.00 Graduate Studio Fee.

0101	Deni Ruggeri	Seats (Total: 10)	
	TuTh 1:00pm - 1:50pm	PLS 2156	
	TuTh 2:00pm - 4:50pm	PLS 2156	Lab

LARC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Development of a terminal thesis on a problem in landscape architecture, designed to demonstrate comprehensive skills and knowledge achieved in the graduate program. The subject will be selected in consultation with an advisor and periodically reviewed with a committee headed by the advisor.

Students must pay a $300.00 Graduate Studio Fee.

Contact department for information to register for this course.

LATN Latin Fall 2022

LATN101 **Elementary Latin I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Additional information: A student who has two units of Latin in high school may register for LATN101 for the purposes of review, but ordinarily not for credit.

0101	Eugenia Lao	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

LATN201 **Intermediate Latin**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit CORE: HO

Prerequisite: Must have completed LATN102 at University of Maryland, College Park; or permission of ARHU-Classics department. Formerly: LATN203.

0101	Gregory Bucher	Seats (Total: 15)
	MWF 10:00am - 10:50am	ONLINE
	F 9:00am - 9:50am	ONLINE

LATN306 **Juvenal**

Credits: 3 Grading Method: Regular

Prerequisite: LATN201 at UMCP, or the equivalent.

In the early second century CE, the poet Juvenal composed his Satires, a series of bitterly critical verses railing against the supposed vices of contemporary Roman society. These poems, which are simultaneously deeply conservative and jarringly obscene, comment upon gender, class, sexuality, ethnicity, and politics in often enigmatic ways. Over the course of the semester, we will explore the strange mixture of aggression, self-deprecation, righteousness, and hypocrisy that characterizes Juvenal's poetry. Students will develop their facility with the Latin language, while also familiarizing themselves with the literary, social, and political context in which Juvenal wrote. Students will utilize these linguistic and analytical skills to produce well-argued papers by the end of the semester.

0101	Chiara Graf TuTh 2:00pm - 3:15pm	Seats (Total: 10) MMH 1218

LATN472 **Historical Development of the Latin Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: LATN472 or LING431.

An analysis of the development of the Latin language from archaic times to the Middle Ages.

0101	Katherine Wasdin W 5:00pm - 7:40pm	Seats (Total: 5) MMH 1218

LATN488K **Latin Readings; Seneca**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

We will read a selection of Seneca the Younger s Epistles, as well as his tragedy Phaedra, in the original Latin. A sampling of relevant scholarly articles in English will supplement our primary readings.

0101	Chiara Graf Tu 5:00pm - 7:40pm	Seats (Total: 5) MMH 1218

LATN499 **Independent Study in Latin Language and Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

LATN672 **Historical Development of the Latin Language**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

An analysis of the development of the Latin language from the archaic period to the Middle Ages.

0101	Katherine Wasdin W 5:00pm - 7:40pm	Seats (Total: 7) MMH 1218

LATN688K **Special Topics in Latin Literature; Seneca**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

We will read a selection of Seneca the Younger s Epistles, as well as his tragedy Phaedra, in the original Latin. A sampling of relevant scholarly articles in English will supplement our primary readings.

0101	Chiara Graf	Seats (Total: 7)
	Tu 5:00pm - 7:40pm	MMH 1218

LATN699 **Independent Studies in Latin Literature**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

LATN799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

LBSC Library Science Fall 2022

LBSC602 **Serving Information Needs**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC602, or both LBSC601 and LBSC650.

An introduction to the skills necessary to interact directly with individuals through the exploration of user behavior theory, strategies to locate and evaluate information from print and electronic resources, and policies and procedures to ensure that all individuals can become information literate.

IM01	Renee Hill	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
IM02	Ursula Gorham-Oscilowski	Seats (Total: 30)
	Tu 6:00pm - 8:45pm	HBK 0123

LBSC631 **Achieving Organizational Excellence**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC631 or LBSC635.

Overview of the principles, practices, and techniques required for effective leadership and management. The innovative strategies, management responsibilities, and skills needed to achieve and sustain high organizational performance in information-based cultural institutions.

IM01	Ryan O'Grady	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

IM02	Adriene Lim	Seats (Total: 30)
	Th 6:00pm - 8:45pm	ATL 2416

LBSC644 **Collection Development**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC 644 or LBSC 708G. Formerly: LBSC 708G.

Activities through which library collections are systematically developed and managed are explored, especially the formulation and implementation of written collection development policies. Other specific topics include identification of user needs; collection evaluation; fund allocation among competing departments, subjects, and/or media; selection methods; intellectual freedom; storage alternatives; and cooperative collection development.

IM01	Morgan Adle	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC645 **Literature and Materials for Children**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Survey of literature and other materials for children and youth. Criteria for evaluating and using such materials as they relate to the needs, interests, reading abilities, and other capabilities of young readers.

IM01	Jennifer Sturge	Seats (Total: 28)
	Class time/details on ELMs	ONLINE

LBSC671 **The Lifecycle of Information**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies. Credit only granted for: LBSC671, or LBSC670 and LBSC690.

Introduction to methods used to create, acquire, organize, manage and preserve information. Information systems currently used to support digital and physical libraries, databases, and repositories will be explored.

IM01	Maggie Dull	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

IM02	Kathy Weaver	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC702 **User Instruction**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of the rationale, content, and processes of user instruction in library and information settings.

IM01	Abbie Basile	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC707 **Field Study in Information Service**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602, LBSC671, and LBSC631; and must have completed an additional 9 credits. Or permission of instructor. Restriction: Must be in Library and Information Science (Master's) program; and permission of INFO-College of Information Studies.

Supervised internship experience in a library, archive, museum, or other information organization.

IM01	Abbie Basile	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC723 **Advocacy and Support for Information Services**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of INFO-College of Information Studies.

Role and influence of government, foundations, associations, and other organizations in supporting and setting the agenda for information services of all types. Role of information professionals in demonstrating advocacy, fund-raising, public relations, lobbying, and seeking external support.

IM01	James Donaldson	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC724 **Public Library Seminar**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of INFO-College of Information Studies.

Organization, support, and service patterns of public libraries. The public library in national, state, and local contexts.

IM01	Paul Jaeger	Seats (Total: 30)
	M 2:00pm - 4:45pm	HBK 0105

LBSC731 **Special Collections**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC602; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Management of special collections, whose holdings may include manuscripts (particularly personal papers), non-textual materials, graphical materials, and rare books, with analysis of the custodial and management functions associated with special collections.

IM01	Victoria Van Hyning	Seats (Total: 30)
	W 2:00pm - 4:45pm	HBK 0103

LBSC742 **Collaborative Instructional Design and Evaluation**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: INST650; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

School librarians' collaborative role in instruction. Systematic design, development, and evaluation of instructional strategies and products for learning.

IM01	Kevin Washburn	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC749 **Internship in School Libraries**

Credits: 1-6 Grading Method: Regular, Audit

Opportunities to observe and participate in the operation of school libraries at the elementary and secondary levels under the supervision of certified school librarians. Required of all School Library Media certification candidates.

IM01	Bridgette Comanda	Seats (Total: 30)
	Class time/details on ELMs	ONLINE

LBSC751 **Research and Teaching Fellowship II**

Credits: 1 Grading Method: Regular

Restriction: Permission of INFO-College of Information Studies.

Part of the Research and Teaching Fellowship program, a three-semester teacher training and professional development program in academic libraries. Fellows will complete weekly readings, complete weekly teaching reflections, and begin preparations for the academic job search.

IM01	Benjamin Shaw Tu 11:00am - 11:50am	Seats (Total: 7) VMH 1101

LBSC770 **Metadata and Tools for Information Professionals**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC671; or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Principles, standards, and practices of information representation to facilitate accessing needed information in digital bibliographic environments. Includes exposure to Metadata, XML, RDA/AACR2R, DTDs, MARC, Dublin Core, MODS, ISBN and ISSN, FRBR, FRAD, Classification systems, and Controlled Vocabularies such as LCSH, SEARS, NLM, Getty and ERIC Thesauri, and others.

IM01	Travis Wagner Th 6:00pm - 8:45pm	Seats (Total: 30) BPS 1232

LBSC791 **Designing Principled Inquiry**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LBSC671, LBSC602, and LBSC631; and additional 9 credits of coursework applied to the MLIS degree. Or permission of instructor. Restriction: Permission of INFO-College of Information Studies.

Critical analysis of roles of information professions and institutions in integrating theory, methods, practice, policies, and values of the field, and applying them to the design of future information systems and services.

IM01	Lesley Langa Class time/details on ELMs	Seats (Total: 30) ONLINE
IM02	Ursula Gorham-Oscilowski Th 6:00pm - 8:45pm	Seats (Total: 30) HBK 0115

LGBT Lesbian Gay Bisexual Transgender Studies Fall 2022

LGBT200 **Introduction to Lesbian, Gay, Bisexual, and Transgender Studies**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB, D	General Education: DSHS, DVUP

Credit only granted for: LGBT200.

An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

0401	Will Mosley TuTh 2:00pm - 3:15pm	Seats (Total: 40) SQH 1117
0501	Will Mosley TuTh 3:30pm - 4:45pm	Seats (Total: 40) SQH 1117
FC01	Jaime Madden TuTh 6:00pm - 7:15pm	Seats (Total: 20) KEY 0124

LGBT265 LGBTQ+ Literatures and Media

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL, D	General Education: DSHU, DVUP

Restriction: Must not have completed LGBT265. Cross-listed with: ENGL265. Credit only granted for: ENGL265 or LGBT265.

A study of literary and cultural expressions of queer and trans identities, positionalities, and analytics through an exploration of literature, art, and media. We will examine historical and political power relations by considering the intersections of sexuality and gender with race, class, nation, and disability. Topics include the social construction and regulation of sexuality and gender, performance and performativity, intersectionality, and the relationship between aesthetic forms and queer/ trans subjectivity. Our interpretations will be informed by queer and trans theories.

0101	Elizabeth Dinneny TuTh 12:30pm - 1:45pm	Seats (Total: 30) JMZ 0103
0201	Aaron Bartlett TuTh 2:00pm - 3:15pm	Seats (Total: 30) TWS 1107

LGBT359A Special Topics in LGBTQ+ Literatures and Media; American Autobiographics

Credits: 3	Grading Method: Regular, Pass-Fail, Audit		

Selected study of a topic pertinent to literary and cultural expressions of LGBTQ+ identities, positionalities, and analytics through an exploration of literature, art, and/or media.

Cross-listing with ENGL359A and WGSS348B. Credit only granted for ENGL359A, LGBT359A, or WGSS348B. Prerequisite: Two lower-level English courses,at least one in literature; or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Martha Nell Smith TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 1106

LGBT386 **Lesbian, Gay, Bisexual, and Transgender Community Organization Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC

Prerequisite: 9 credits in LGBT courses. Restriction: Permission of LGBT Studies Program.

Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

Contact department for information to register for this course.

LGBT448C **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Sex and the City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

In-depth study of particular themes and issues in LGBT studies.

0101	Christina Hanhardt MW 2:00pm - 3:15pm	Seats (Total: 20) TWS 0134

LGBT448L **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Black Queer Studies**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

In-depth study of particular themes and issues in LGBT studies.

Cross-listed with AASP498Y. Credit only granted for LGBT448L or AASP498Y.

0101	Sydney Lewis MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 30) SPH 0307 ONLINE

LGBT448Y **Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DVUP

In-depth study of particular themes and issues in LGBT studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with ENGL439D and WGSS498Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith TuTh 12:30pm - 1:45pm	Seats (Total: 15) TWS 0236	

LGBT499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed research and analysis in LGBT Studies on a topic selected by the student.

Contact department for information to register for this course.

LING Linguistics Fall 2022

LING200 **Introductory Linguistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB General Education: DSHS

Credit only granted for: HESP120 or LING200. Additional information: Does not count toward the Linguistics major and does not fulfill prerequisite requirements for all upper-level courses.

An exploration of the nature of human language, designed for non-majors. Introduction to the basic concepts and methodology of modern linguistic analysis (sound systems, word formation, sentence structure). Additional topics may include: semantics, pragmatics, social aspects of language, dialects, language change, acquisition, writing systems, typology, language universals, comparison with other communication systems, etc.

0101	Margaret Antonisse MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 30) MMH 1400 TWS 0214	Discussion
0102	Margaret Antonisse MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 30) MMH 1400 MMH 1304	Discussion
0104	Margaret Antonisse MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) MMH 1400 MMH 1304	Discussion

LING240 **Language and Mind**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

Additional information: Required for Linguistics majors and recommended for students in related fields.

The study of language as a cognitive phenomenon. Focus on mastering the concepts and technical skills required for further courses in linguistics. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Additional topics may include: animal communication, language and the brain, language and thought.

0101	Tonia Bleam	Seats (Total: 40)
	MWF 11:00am - 11:50am	ARC 1101

LING248 **Introduction to Laboratory Research in Linguistics**

(Perm req)

Credits: 2-3 Grading Method: Regular

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

0101	Jeffrey Lidz	Seats (Total: 5)
	Contact instructor or department for details.	

LING248T **Introduction to Laboratory Research in Linguistics**

Credits: 2 Grading Method: Regular, Pass-Fail

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Learning to conduct research in laboratory linguistics as part of a research team that will create original research in the field.

0101	Andrea Zukowski	Seats (Total: 10)
	Contact instructor or department for details.	

LING262 **HERITAGE LANGUAGES AND THEIR SPEAKERS**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Additional information: One class per week will be in-field instruction in collecting data from heritage speakers.

An interdisciplinary examination of the phenomenon of heritage language (a bilingual's home language which is distinct from the dominant language of the wider society). Relationship between linguistic structure, cultural and social aspects of language use, and language change. Interpretations of experimental and theoretical work. Relevance of heritage languages for linguistic theory, language policy, and education.

0101	Polina Pleshak	Seats (Total: 30)
	TuTh 9:30am - 10:45am	MMH 1304

LING311 **Syntax I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.

0101	Tonia Bleam	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MMH 1304

LING320 Phonetics

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: Minimum grade of C- in LING200 or LING240.

Representations and models of acoustic and articulatory phonetics. Develops concepts and skills for description, measurement and scientific analysis of the sound systems of human languages, including various varieties of English.

0101	William Idsardi	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

LING321 Phonology I

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING240.

Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

0101	Margaret Antonisse	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	MMH 1304

LING410 Grammar and Meaning

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of instructor; or LING311.

The basic notions of semantic theory: reference, quantification, scope relations, compositionality, thematic relations, tense and time, etc. The role these notions play in grammars of natural languages. Properties of logical form and relationship with syntax.

0101	Jessica Mendes	Seats (Total: 20)
	MW 3:30pm - 4:45pm	MMH 1304

LING419A **Topics in Syntax; Agreement and Concord**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics vary.

Prerequisite: LING311. Examination of current research on agreement (e.g., between subject and verb) and concord (e.g., shared features between a nound and its modifiers). Critical evaluation of theories that propose a unified explanation versus those that treat agreement and concord as distinct phenomena.

0101	Anna Grabovac	Seats (Total: 10)
	MW 12:00pm - 1:15pm	MMH 1304

LING420 **Word Formation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321 and LING311.

Examination of shape and meaning of possible words, both across languages and within particular languages. Interaction between principles of word formation and other components of a grammar: syntax, logical form and phonology.

0101	Masa Beslin	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MMH 1304

LING429A **Topics in Phonology; Features in Phonology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced seminar in phonology. Topics vary.

Most theories of phonology recognize the existence of sub-phonemic units known as phonological features. This course examines the use of features in structuralist and generative theories of phonology. While the status of features as the basic representational unit of phonology is perhaps the best example of an ontological consensus in phonology, recent research has turned to some basic questions regarding their nature: are features imbued with phonetic content or are they purely mental symbolic markers?

0101	Alexander Chabot	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	MMH 1304

LING440 **Grammars and Cognition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: LING321 and LING311.

Relationship between the structure, development and functioning of grammars and the structure, development and functioning of other mental systems. Interpretations of experimental and observational work on children's language, aphasia, speech production and comprehension.

0101	Ellen Lau	Seats (Total: 25)
	MW 2:00pm - 3:15pm	MMH 1304

LING448 **Advanced Laboratory Research in Linguistics**

(Perm req)

Credits: 2-3 Grading Method: Regular

Individualized, collaborative research course aimed at developing skills for laboratory research in language acquisition, sentence processing or neurolinguistics. Conducting a research project in laboratory linguistics as part of a team creating original research relevant to current issues in linguistics.

0101	Jeffrey Lidz	Seats (Total: 5)
	Contact instructor or department for details.	

LING499 **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING499C **Directed Studies in Linguistics; Teaching Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Designed for students that will be teaching assistants for LING200.

0101	Margaret Antonisse	Seats (Total: 4)
	Contact instructor or department for details.	
0201	Tonia Bleam	Seats (Total: 4)
	Contact instructor or department for details.	

LING499H **Directed Studies in Linguistics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Independent study or research on language under the supervision of a faculty member.

Contact department for information to register for this course.

LING610 **Syntactic Theory**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING312.

Intensive introduction to transformational syntax.

0101	Howard Lasnik	Seats (Total: 15)	
	Tu 2:00pm - 4:30pm	MMH 1108B	
	Th 2:00pm - 3:30pm	MMH 1108B	Discussion

LING640 **Psycholinguistics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor.

Core graduate course in psycholinguistics, covering leading theoretical approaches and experimental methods in language acquisition, language processing, and neurolinguistics.

0101	Colin Phillips	Seats (Total: 20)
	MW 12:00pm - 1:30pm	MMH 1108B

LING646 **Cognitive Neuroscience of Language**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Overview of classical and recent work on the neural basis of speech and language, with a goal of introducing contemporary methods and results to prepare the student to read the neurolinguistics and cognitive neuroscience literature. An emphasis will be placed on current techniques.

0101	Ellen Lau	Seats (Total: 15)
	MW 10:00am - 11:15am	MMH 1108B

LING660 **Introduction to Semantics**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor.

Basic concepts and methods of contemporary semantic theory including basic set theory, elementary propositional and predicate calculus, the structure of predicates and propositions, quantification binding. Prepares students for study of more advanced topics in semantics.

Cross-listed with PHIL688T. Credit granted for LING660 or PHIL688T.

0101	Alexander Williams	Seats (Total: 15)
	TuTh 9:30am - 10:45am	MMH 1108B

LING689 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Independent studies in grammatical theory.

Contact department for information to register for this course.

LING689C **Independent Study; Computational Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Independent studies in grammatical theory.

Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Naomi Feldman	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	MMH 1108B

LING689M **Independent Study; Professional Methods**

Credits: 1 Grading Method: Regular, Audit

Independent studies in grammatical theory.

0101	Howard Lasnik	Seats (Total: 15)
	W 11:00am - 12:30pm	MMH 1401G

LING698 **Directed Study; Seminar**

Credits: 1-3 Grading Method: Regular, Audit

0101	Howard Lasnik	Seats (Total: 10)
	F 3:00pm - 5:00pm	Location: TBA

LING698T **Directed Study; Pedagogy for Linguistics**

Credits: 1 Grading Method: Regular, Audit

Required for LING200 Teaching Assistants.

0101	Margaret Antonisse	Seats (Total: 6)
	Contact instructor or department for details.	

LING723 **Natural Language Processing**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in CMSC422; and permission of CMNS-Computer Science department. Cross-listed with: CMSC723, INST735. Credit only granted for: CMSC723, LING723, or INST735. Additional information: CMSC students may only receive PhD Comp. credit for CMSC723 or CMSC823, not both.

Introduce fundamental concepts, techniques, and algorithms for the computational handling of natural language. Statistical and machine learning techniques, models, and algorithms that enable computers to deal with the ambiguity and implicit structure of human language. Approaches that focus on uncovering linguistic structure, such as syntactic or semantic parsing, as well as those that focus on manipulating text in useful ways, such as question answering or machine translation.

0101	Jordan Ying	Seats (Total: 80)
	MW 3:30pm - 4:45pm	IRB 0318

LING798 **Research Papers in Linguistics**

(Perm req)

Credits: 1-6 Grading Method: Regular

Contact department for information to register for this course.

LING799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

LING849C **Seminar in Psycholinguistics; Computational Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Current topics in research on psycholinguistics.

Cross-listed with NACS728W and CMSC828F. Credit only granted for LING849C, NACS728W, or CMSC828F. Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Naomi Feldman	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	MMH 1108B

LING869D **Seminar in Neurolinguistics; Cognitive Neuroscience of Language**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research on neurolinguistics.

Cognitive neuroscience of language, including EEG, MEG and fMRI methods.

0101	Ellen Lau	Seats (Total: 10)
	Contact instructor or department for details.	

LING879P **Seminar in Semantics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Current topics in research in semantics.

0101	Jeffrey Lidz	Seats (Total: 15)
	W 2:00pm - 5:00pm	MMH 1108B

LING888 **Doctoral Research Paper**

Credits: 1-6 Grading Method: Regular, Audit

Students will strengthen their abilities to formulate coherent research questions, conduct research and create a publishable piece of work. In addition, the course is part of a set of requirements to advance to doctoral candidacy.

0101	Howard Lasnik	Seats (Total: 3)
	Contact instructor or department for details.	
0201	Norbert Hornstein	Seats (Total: 3)
	Contact instructor or department for details.	
0301	Tonia Bleam	Seats (Total: 3)
	Contact instructor or department for details.	
0401	Jeffrey Lidz	Seats (Total: 3)
	Contact instructor or department for details.	
0501	Andrea Zukowski	Seats (Total: 3)
	Contact instructor or department for details.	
0601	Juan Uriagereka	Seats (Total: 3)
	Contact instructor or department for details.	
0701	Amy Weinberg	Seats (Total: 3)
	Contact instructor or department for details.	

0801	William Idsardi Contact instructor or department for details.	Seats (Total: 3)
0901	Philip Resnik Contact instructor or department for details.	Seats (Total: 3)
1001	Maria Polinsky Contact instructor or department for details.	Seats (Total: 3)
1101	Paul Pietroski Contact instructor or department for details.	Seats (Total: 3)
1201	Colin Phillips Contact instructor or department for details.	Seats (Total: 3)
1301	Margaret Antonisse Contact instructor or department for details.	Seats (Total: 3)
1401	Valentine Hacquard Contact instructor or department for details.	Seats (Total: 3)
1501	Alexander Williams Contact instructor or department for details.	Seats (Total: 3)
1601	Naomi Feldman Contact instructor or department for details.	Seats (Total: 3)
1701	Ellen Lau Contact instructor or department for details.	Seats (Total: 3)
1801	Omer Preminger Contact instructor or department for details.	Seats (Total: 3)

LING889 **Directed Research**

Credits: 1-8 Grading Method: Regular, Audit

Contact department for information to register for this course.

LING896 **Research Paper in Minor Area**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: LING888.

This course is designed to strengthen the students' ability to do research in a minor area of expertise, and to help them create a publishable piece. In addition, the course constitutes part of a set of requirements to advance to doctoral candidacy.

Contact department for information to register for this course.

LING898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

LING899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MATH Mathematics Fall 2022

MATH003 **Developmental Mathematics**

Credits: 3 Grading Method: Sat-Fail

A review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.

There is a special fee for this class in addition to the regular tuition charge.

0102	Matthew Wilson MWF 9:00am - 10:50am *Restricted to students in the uTERP Program only.*	Seats (Total: 20) ESJ B0320
0201	Kayla Davie MWF 10:00am - 11:50am	Seats (Total: 40) CEN 0200
0202	Kayla Davie MWF 10:00am - 11:50am	Seats (Total: 24) PHY 4220
0601	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 40) CEN 0200
0602	Colleen Terpos TuTh 8:00am - 10:45am	Seats (Total: 23) PHY 4220

0701	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 38) CEN 0200
0702	Colleen Terpos TuTh 11:00am - 1:45pm	Seats (Total: 24) PHY 4220
FC01	Aaron Large MW 6:00pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 45) CEN 0200
FC02	Aaron Large MW 6:00pm - 8:45pm	Seats (Total: 20) PHY 4220

MATH007 **Algebra for MATH 107**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH107. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH107, the same semester, which also meets 5 days per week. Continuation in MATH107 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH007 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH107 or MATH003, both of which are graded.

1101	Debra Franklin MTuWThF 11:00am - 11:50am	Seats (Total: 20) PHY 4222
1201	Debra Franklin MTuWThF 1:00pm - 1:50pm	Seats (Total: 20) PHY 4222

MATH013 **Algebra for MATH 113**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential, and logarithm functions, and trigonometry. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH107), or MATH003, all of which are graded.

1101	Santuria Orsetti MTuWThF 9:00am - 9:50am	Seats (Total: 24) MTH 0402
1201	Santuria Orsetti MTuWThF 11:00am - 11:50am	Seats (Total: 24) MTH 0402
1301	Steven Sax MTuWThF 12:00pm - 12:50pm	Seats (Total: 25) MTH 0402
1401	Steven Sax MTuWThF 1:00pm - 1:50pm	Seats (Total: 23) MTH 0402

MATH015 **Algebra for MATH 115**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential, logarithm functions and trigonometry. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH107 or MATH113), or MATH003, all of which are graded.

1101	Joshua Lucker MTuWThF 9:00am - 9:50am	Seats (Total: 24) ATL 1109
1201	Jermain McDermott MTuWThF 11:00am - 11:50am	Seats (Total: 24) ATL 1109
1301	Ben Bezejouh MTuWThF 12:00pm - 12:50pm	Seats (Total: 24) ATL 1109
1401	Ben Bezejouh MTuWThF 1:00pm - 1:50pm	Seats (Total: 25) ATL 1109
1501	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 24) MTH 0402

MATH107 **Introduction to Math Modeling and Probability**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: FSMA

Prerequisite: Must have math eligibility of Math 107 or higher; and math eligibility is based on Math Placement Exam or successful completion of MATH003 with appropriate eligibility. Restriction: Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences;; and must not have completed MATH120, MATH130, MATH136, or MATH140; and must not have completed MATH220; and must not have completed any MATH or STAT course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220. Credit only granted for: STAT100, MATH107, or MATH113. Formerly: Math 110 and Math 111. Additional information: Students who have credits for MATH107 may not also receive credit for STAT100, or MATH113.

A goal is to convey the power of mathematics as shown by a variety of problems which can be modeled and solved by quantitative means. Also included is an introduction to probability. Topics include data analysis, equations, systems of equations, inequalities, elementary linear programming, Venn diagrams, counting, basic probability, permutations, combinations, tree diagrams, standard normal and normal distributions. The mathematics of finance is covered. The course includes problem solving and decision making in economics, management, and social sciences.

0101	Ayala Nuriely MWF 11:00am - 11:50am	Seats (Total: 30) MTH B0421
0201	Matthew Wilson MWF 12:00pm - 12:50pm	Seats (Total: 30) MTH B0425
0301	Mirna Pinsky MWF 1:00pm - 1:50pm	Seats (Total: 30) MTH B0425
0401	Mirna Pinsky MWF 2:00pm - 2:50pm	Seats (Total: 30) MTH B0425
FC01	Julie Daberkow MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH 0103

MATH113 **College Algebra and Trigonometry**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH113 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH 003 with appropriate eligibility. Restriction: Must not have completed MATH115, MATH120, MATH130, MATH136, or MATH140; and must not have completed any course with a prerequisite of MATH120, MATH130, MATH136, MATH140 or MATH220; and must not have completed MATH112 or MATH220. Credit only granted for: Students who have credits for MATH113 may not also receive credits for MATH107, MATH110, MATH112, or MATH115.

Topics include elementary functions including graphs and applications of: polynomial, rational, exponential, and logarithmic functions. Systems of equations and applications. Trigonometric functions: angle and radian measure, graphs and applications.

0111	Barbara Michelato TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0112	Barbara Michelato TuTh 9:30am - 10:45am W 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0304	Discussion
0121	Barbara Michelato TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH B0427	Discussion
0122	Barbara Michelato TuTh 9:30am - 10:45am W 11:00am - 11:50am	Seats (Total: 30) ARM 0131 MTH 0304	Discussion
0131	Barbara Michelato TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion
0132	Barbara Michelato TuTh 9:30am - 10:45am W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0131 MTH 0305	Discussion
0141	Barbara Michelato TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion
0142	Barbara Michelato TuTh 9:30am - 10:45am W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0131 MTH 0305	Discussion
0211	Barbara Michelato TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0307	Discussion

0212	Barbara Michelato TuTh 11:00am - 12:15pm W 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0303	Discussion
0221	Barbara Michelato TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0307	Discussion
0222	Barbara Michelato TuTh 11:00am - 12:15pm W 11:00am - 11:50am	Seats (Total: 31) ARM 0126 MTH 0303	Discussion
0231	Barbara Michelato TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0106	Discussion
0232	Barbara Michelato TuTh 11:00am - 12:15pm W 1:00pm - 1:50pm	Seats (Total: 30) ARM 0126 MTH 0306	Discussion
0241	Barbara Michelato TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH 0106	Discussion
0242	Barbara Michelato TuTh 11:00am - 12:15pm W 2:00pm - 2:50pm	Seats (Total: 30) ARM 0126 MTH 0306	Discussion
FC01	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SHM 2102 MTH 0201	Discussion
FC02	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SHM 2102 MTH 0306	Discussion

FC03	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SHM 2102 MTH 0306	Discussion
FC04	Jocelyn Menecio TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) SHM 2102 MTH 0306	Discussion

MATH115 **Precalculus**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSMA

Prerequisite: Must have math eligibility of MATH115 or higher; and math eligibility is based on the Math Placement Exam or the successful completion of MATH003 with appropriate eligibility. Or MATH113. Restriction: Must not have completed MATH140; and must not have completed any MATH or STAT course with a prerequisite of MATH140. Credit only granted for: Students who have credits for MATH115 may not also receive credits for MATH112 or MATH113.

Preparation for MATH120, MATH130 or MATH140. Elementary functions and graphs: polynomials, rational functions, exponential and logarithmic functions, trigonometric functions. Algebraic techniques preparatory for calculus.

0111	Raluca Rosca MWF 9:00am - 9:50am MWF 10:00am - 10:50am	Seats (Total: 29) ESJ 0202 PHY 4207	Lab
0121	Raluca Rosca MWF 9:00am - 9:50am MWF 11:00am - 11:50am	Seats (Total: 29) ESJ 0202 PHY 4207	Lab
0131	Raluca Rosca MWF 9:00am - 9:50am MWF 12:00pm - 12:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	Lab
0141	Raluca Rosca MWF 9:00am - 9:50am MWF 1:00pm - 1:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	Lab
0151	Raluca Rosca MWF 9:00am - 9:50am MWF 2:00pm - 2:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	Lab

0161	Raluca Rosca MWF 9:00am - 9:50am MWF 3:00pm - 3:50pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0171	Raluca Rosca MWF 9:00am - 9:50am TuTh 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0181	Raluca Rosca MWF 9:00am - 9:50am TuTh 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Lab
0191	Raluca Rosca MWF 9:00am - 9:50am TuTh 12:30pm - 1:45pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Discussion
0192	Raluca Rosca MWF 9:00am - 9:50am TuTh 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4207	 Discussion
1501	Ben Bezejouh MTuWThF 10:00am - 10:50am	Seats (Total: 20) MTH 0402	
FC01	Jocelyn Menecio MW 3:00pm - 4:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0303	 Discussion
FC02	Jocelyn Menecio MW 3:00pm - 4:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0304	 Discussion
FC03	Jocelyn Menecio MW 3:00pm - 4:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 PHY 0405	 Discussion

FC04	Jocelyn Menecio MW 3:00pm - 4:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0106	Discussion

MATH120 **Elementary Calculus I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR, FSMA

Prerequisite: 1 course with a minimum grade of C- from (MATH113, MATH115). Or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.. Formerly: MATH220.

Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

0111	Archana Khurana MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0112	Archana Khurana MWF 10:00am - 10:50am Th 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 MTH 0303	Discussion
0121	Archana Khurana MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0122	Archana Khurana MWF 10:00am - 10:50am Th 9:30am - 10:20am	Seats (Total: 30) ESJ 0224 MTH 0303	Discussion
0131	Archana Khurana MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 MTH 0401	Discussion
0132	Archana Khurana MWF 10:00am - 10:50am Th 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 MTH 0411	Discussion

0141	Archana Khurana MWF 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 30) ESJ 0224 MTH 0401	 Discussion
0142	Archana Khurana MWF 10:00am - 10:50am Th 12:30pm - 1:20pm	Seats (Total: 30) ESJ 0224 MTH 0411	 Discussion
0211	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 8:00am - 8:50am	Seats (Total: 29) PHY 1412 ESJ 1309	 Discussion
0221	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 9:00am - 9:50am	Seats (Total: 29) PHY 1412 ESJ 1309	 Discussion
0231	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 ESJ 0215	 Discussion
0232	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 ESJ 0215	 Discussion
0241	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 29) PHY 1412 ESJ 0215	 Discussion
0251	Mestiyage Gunatilleka TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 29) PHY 1412 ESJ 0215	 Discussion
0311	James Conway TuTh 11:00am - 12:15pm M 8:00am - 8:50am	Seats (Total: 29) ESJ 0224 ESJ 1309	 Discussion
0321	James Conway TuTh 11:00am - 12:15pm M 9:00am - 9:50am	Seats (Total: 30) ESJ 0224 ESJ 1309	 Discussion

0331	James Conway TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 29) ESJ 0224 ESJ 0215	 Discussion
0332	James Conway TuTh 11:00am - 12:15pm M 12:00pm - 12:50pm	Seats (Total: 30) ESJ 0224 ESJ 0215	 Discussion
0341	James Conway TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 29) ESJ 0224 ESJ 0215	 Discussion
0342	James Conway TuTh 11:00am - 12:15pm M 1:00pm - 1:50pm	Seats (Total: 29) ESJ 0224 ESJ 0215	 Discussion
0351	James Conway TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 29) ESJ 0224 ESJ 0215	 Discussion
0352	James Conway TuTh 11:00am - 12:15pm M 2:00pm - 2:50pm	Seats (Total: 29) ESJ 0224 ESJ 0215	 Discussion
0411	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 8:00am - 8:50am	Seats (Total: 29) HJP 0226 ESJ 1309	 Discussion
0421	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 9:00am - 9:50am	Seats (Total: 29) HJP 0226 ESJ 1309	 Discussion
0431	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	 Discussion
0432	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 12:00pm - 12:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	 Discussion

0441	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	Discussion
0442	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 1:00pm - 1:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	Discussion
0451	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	Discussion
0452	Timothy Pilachowski TuTh 12:30pm - 1:45pm W 2:00pm - 2:50pm	Seats (Total: 29) HJP 0226 ESJ 0215	Discussion
FC01	Jason Schultz TuTh 6:00pm - 7:15pm F 9:00am - 9:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0304	Discussion
FC02	Jason Schultz TuTh 6:00pm - 7:15pm F 10:00am - 10:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0307	Discussion
FC03	Jason Schultz TuTh 6:00pm - 7:15pm F 11:00am - 11:50am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 PHY 1219	Discussion
FC04	Jason Schultz TuTh 6:00pm - 7:15pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) JMZ 0220 MTH 0405	Discussion

MATH121 **Elementary Calculus II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH120, MATH130, MATH136, or MATH140. Restriction: Not open to students majoring in mathematics, engineering, the biological sciences, biochemistry, chemistry, or the physical sciences. Credit only granted for: MATH121, MATH131, or MATH141.. Formerly: MATH 221.

Trigonometric functions, techniques of integration, infinite series, differential equations, probability.

0101	Turner Pepper MWF 12:00pm - 12:50pm	Seats (Total: 20) MTH 1311	

MATH135 **Discrete Mathematics for Life Sciences**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH113 or MATH115; or must have math eligibility of MATH120 or higher; and math eligibility is based on the Math Placement Test. Restriction: Must be in the Biological Sciences or Neuroscience major; and not open to students majoring in mathematics, engineering, or the physical sciences.

Basic discrete mathematics, with emphasis on relevant models and techniques to the life sciences.

0111	Todd Rowland MWF 2:00pm - 2:50pm WF 8:00am - 8:50am	Seats (Total: 25) PHY 1412 MTH 0105	Discussion
0112	Todd Rowland MWF 2:00pm - 2:50pm WF 8:00am - 8:50am	Seats (Total: 25) PHY 1412 MTH 0305	Discussion
0121	Todd Rowland MWF 2:00pm - 2:50pm WF 9:00am - 9:50am	Seats (Total: 25) PHY 1412 MTH 0105	Discussion
0122	Todd Rowland MWF 2:00pm - 2:50pm WF 9:00am - 9:50am	Seats (Total: 25) PHY 1412 MTH 0305	Discussion
0131	Todd Rowland MWF 2:00pm - 2:50pm WF 10:00am - 10:50am	Seats (Total: 25) PHY 1412 MTH 0105	Discussion
0132	Todd Rowland MWF 2:00pm - 2:50pm WF 10:00am - 10:50am	Seats (Total: 25) PHY 1412 MTH 0305	Discussion

0141	Todd Rowland MWF 2:00pm - 2:50pm WF 11:00am - 11:50am	Seats (Total: 26) PHY 1412 MTH 0105	Discussion
0142	Todd Rowland MWF 2:00pm - 2:50pm WF 11:00am - 11:50am	Seats (Total: 25) PHY 1412 MTH 0305	Discussion
0211	Lutian Zhao TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 25) ARM 0135 MTH 0405	Discussion
0212	Lutian Zhao TuTh 2:00pm - 3:15pm MW 8:00am - 8:50am	Seats (Total: 25) ARM 0135 MTH 0403	Discussion
0221	Lutian Zhao TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0405	Discussion
0222	Lutian Zhao TuTh 2:00pm - 3:15pm MW 9:00am - 9:50am	Seats (Total: 25) ARM 0135 MTH 0403	Discussion
0231	Lutian Zhao TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 26) ARM 0135 MTH 0405	Discussion
0232	Lutian Zhao TuTh 2:00pm - 3:15pm MW 11:00am - 11:50am	Seats (Total: 25) ARM 0135 MTH 0403	Discussion
0241	Lutian Zhao TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 26) ARM 0135 MTH 0405	Discussion
0242	Lutian Zhao TuTh 2:00pm - 3:15pm MW 12:00pm - 12:50pm	Seats (Total: 26) ARM 0135 MTH 0403	Discussion

MATH136 Calculus for Life Sciences

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH135. Restriction: Must be in the Biological Sciences or Neuroscience major. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Continuation of MATH135, including basic ideas of differential and integral calculus, with emphasis on elementary techniques and applications to the life sciences.

0111	Jose Rigoberto Enrique Zelada Cifuentes TuTh 11:00am - 12:15pm MW 9:00am - 9:50am	Seats (Total: 23) ARM 0135 MTH 0101	Discussion
0121	Jose Rigoberto Enrique Zelada Cifuentes TuTh 11:00am - 12:15pm MW 10:00am - 10:50am	Seats (Total: 23) ARM 0135 MTH 0101	Discussion
0131	Jose Rigoberto Enrique Zelada Cifuentes TuTh 11:00am - 12:15pm MW 1:00pm - 1:50pm	Seats (Total: 23) ARM 0135 MTH 0302	Discussion
0141	Jose Rigoberto Enrique Zelada Cifuentes TuTh 11:00am - 12:15pm MW 2:00pm - 2:50pm	Seats (Total: 23) ARM 0135 MTH 0302	Discussion

MATH140 **Calculus I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH115. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 25) PHY 1412 MTH 1308	Discussion
0112	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 25) PHY 1412 MTH 1311	Discussion

0113	Denny Gulick MWF 8:00am - 8:50am TuTh 8:00am - 9:20am	Seats (Total: 25) PHY 1412 MTH 1313	Discussion
0121	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 26) PHY 1412 MTH 1308	Discussion
0122	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 26) PHY 1412 MTH 1311	Discussion
0123	Denny Gulick MWF 8:00am - 8:50am TuTh 9:30am - 10:50am	Seats (Total: 26) PHY 1412 MTH 1313	Discussion
0131	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) PHY 1412 MTH 1308	Discussion
0132	Denny Gulick MWF 8:00am - 8:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) PHY 1412 MTH 1311	Discussion
0211	Steven Chadwick MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 26) BRB 1101 MTH 0409	Discussion
0212	Steven Chadwick MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 26) BRB 1101 MTH 0305	Discussion
0213	Steven Chadwick MWF 10:00am - 10:50am TuTh 11:00am - 12:20pm	Seats (Total: 26) BRB 1101 MTH 0407	Discussion
0221	Steven Chadwick MWF 10:00am - 10:50am TuTh 12:30pm - 1:50pm	Seats (Total: 26) BRB 1101 MTH 0409	Discussion

0222	Steven Chadwick MWF 10:00am - 10:50am TuTh 12:30pm - 1:50pm	Seats (Total: 26) BRB 1101 MTH 0305	Discussion
0223	Steven Chadwick MWF 10:00am - 10:50am TuTh 12:30pm - 1:50pm	Seats (Total: 26) BRB 1101 MTH 0407	Discussion
0231	Steven Chadwick MWF 10:00am - 10:50am TuTh 2:00pm - 3:20pm	Seats (Total: 26) BRB 1101 MTH 0409	Discussion
0232	Steven Chadwick MWF 10:00am - 10:50am TuTh 2:00pm - 3:20pm	Seats (Total: 26) BRB 1101 MTH 0305	Discussion
0311	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0312	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0313	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 11:00am - 12:20pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0321	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0322	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0323	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 12:30pm - 1:50pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion

0331	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 2:00pm - 3:20pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0332	Timothy Pilachowski MWF 11:00am - 11:50am TuTh 2:00pm - 3:20pm	Seats (Total: 25) ESJ 0224 ESJ 0215	Discussion
0411	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 9:30am - 10:50am	Seats (Total: 26) ARM 0135 MTH 0102	Discussion
0412	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0105	Discussion
0413	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 9:30am - 10:50am	Seats (Total: 26) ARM 0135 MTH 0302	Discussion
0421	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH B0421	Discussion
0422	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH 0105	Discussion
0423	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH 0302	Discussion
0431	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH B0421	Discussion
0432	Eoin Mackall MWF 12:00pm - 12:50pm TuTh 2:00pm - 3:20pm	Seats (Total: 25) ARM 0135 MTH 0105	Discussion

0511	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0102	Discussion
0512	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0103	Discussion
0513	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 8:00am - 9:20am	Seats (Total: 25) ARM 0135 MTH 0305	Discussion
0521	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0101	Discussion
0522	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0103	Discussion
0523	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 9:30am - 10:50am	Seats (Total: 25) ARM 0135 MTH 0305	Discussion
0531	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH 0101	Discussion
0532	Steven Chadwick MWF 2:00pm - 2:50pm TuTh 11:00am - 12:20pm	Seats (Total: 26) ARM 0135 MTH 0103	Discussion
FC01	Steven Chadwick MWTh 3:00pm - 4:15pm F 9:30am - 10:45am *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0126 MTH 0101	Discussion
FC02	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ARM 0126 EGR 1104	Discussion

FC03	Steven Chadwick MWTh 3:00pm - 4:15pm F 1:00pm - 2:15pm	Seats (Total: 30) ARM 0126 MTH 0403	Discussion
	Restricted to students in Freshmen Connection.		
FC04	Steven Chadwick MWTh 3:00pm - 4:15pm F 2:30pm - 3:45pm	Seats (Total: 30) ARM 0126 MTH 0303	Discussion
	Restricted to students in Freshmen Connection.		
FC05	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm	Seats (Total: 30) ARM 0126 MTH 0403	Discussion
	Restricted to students in Freshmen Connection.		
FC06	Steven Chadwick MWTh 3:00pm - 4:15pm F 9:30am - 10:45am	Seats (Total: 30) ARM 0126 PHY 1219	Discussion
	Restricted to students in Freshmen Connection.		
FC07	Steven Chadwick MWTh 3:00pm - 4:15pm F 11:00am - 12:15pm	Seats (Total: 30) ARM 0126 MTH 0405	Discussion
	Restricted to students in Freshmen Connection.		
FC08	Steven Chadwick MWTh 3:00pm - 4:15pm F 1:00pm - 2:15pm	Seats (Total: 30) ARM 0126 MTH 0411	Discussion
	Restricted to students in Freshmen Connection.		
FC09	Craig Schlenoff MWTh 4:30pm - 5:45pm F 2:30pm - 3:45pm	Seats (Total: 30) ARM 0126 MTH 0306	Discussion
	Restricted to students in Freshmen Connection.		
FC10	Craig Schlenoff MWTh 4:30pm - 5:45pm F 1:00pm - 2:15pm	Seats (Total: 30) ARM 0126 MTH B0429	Discussion

MATH140H Calculus I

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: MS	General Education: FSAR, FSMA

Prerequisite: Minimum grade of C- in MATH115. Credit only granted for: MATH120, MATH130, MATH136, or MATH140.

Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

For general honors students only. Offered fall only.

0101	Shiferaw Berhanu MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 22) MTH 1313 MTH 1313		
0201	Hannah Hoganson WF 1:00pm - 1:50pm M 1:00pm - 2:50pm	Seats (Total: 22) MTH 0101 MTH 0101		

MATH141 **Calculus II**

Credits: 4	Grading Method: Regular, Pass-Fail, Audit	CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Credit only granted for: MATH121, MATH131, or MATH141..

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0111	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0306		Discussion
0112	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 29) ARM 0131 MTH 0304		Discussion
0121	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0306		Discussion

0122	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0131	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0306	Discussion
0132	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0141	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0306	Discussion
0142	Hatice Sahinoglu MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 29) ARM 0131 MTH 0304	Discussion
0211	Amin Gholampour MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 30) PHY 1412 MTH B0423	Discussion
0212	Amin Gholampour MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 29) PHY 1412 MTH B0427	Discussion
0221	Amin Gholampour MWF 11:00am - 11:50am TuTh 9:00am - 9:50am	Seats (Total: 29) PHY 1412 MTH B0423	Discussion
0222	Amin Gholampour MWF 11:00am - 11:50am TuTh 9:00am - 9:50am	Seats (Total: 29) PHY 1412 MTH B0427	Discussion
0231	Amin Gholampour MWF 11:00am - 11:50am TuTh 10:00am - 10:50am	Seats (Total: 29) PHY 1412 MTH B0423	Discussion

0241	Amin Gholampour MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) PHY 1412 MTH B0423	Discussion
0251	Amin Gholampour MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) PHY 1412 MTH B0423	Discussion
0261	Amin Gholampour MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) PHY 1412 MTH B0423	Discussion
0311	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) PHY 1412 MTH 0306	Discussion
0312	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 29) PHY 1412 MTH 0304	Discussion
0321	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) PHY 1412 MTH 0306	Discussion
0322	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 29) PHY 1412 MTH 0304	Discussion
0331	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) PHY 1412 MTH 0306	Discussion
0332	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 29) PHY 1412 MTH 0304	Discussion
0341	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 28) PHY 1412 MTH 0306	Discussion

0342	Hussain Ibdah MWF 1:00pm - 1:50pm TuTh 3:00pm - 3:50pm	Seats (Total: 29) PHY 1412 MTH 0304	Discussion
FC01	David Pincus MWTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH 0405	
FC02	Jonathan Fernandes MWTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH B0423	
FC03	David Pincus MWTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH 0403	

MATH141H **Calculus II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS

Prerequisite: Minimum grade of C- in MATH140. Credit only granted for: MATH121, MATH131, or MATH141..

Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

For Honors College students only. Graphing calculators, or computers, etc., with software appropriate for graphing non-trivial functions and doing non-trivial calculations, will be needed.

0101	Todd Rowland WF 9:00am - 9:50am M 9:00am - 10:50am	Seats (Total: 20) EGR 0135 EGR 0135	
0201	Hussain Ibdah MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 20) PHY 1204 PHY 1204	

MATH206 **Introduction to Matlab**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH136, MATH140).

This course is intended to prepare students for subsequent courses requiring computation with MATLAB. Covers basics of MATLAB including simple commands, variables, solving equations, graphing differentiation and integration, matrices and vectors, functions, M-files and fundamentals of programming in the MATLAB environment. When offered in Winter and Summer terms, the course is offered in a format suitable for online distance learning.

0101	Justin Wyss-Gallifent **Meets August 29, 2022 - October 10, 2022** Class time/details on ELMs	Seats (Total: 450) ONLINE

MATH212 **Elements of Numbers and Operations**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have completed one year of college preparatory algebra. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Reviews and extends topics of arithmetic and number theory related to the elementary school curriculum, particularly number systems and operations with natural numbers, integers, and rationals.

0101	Carolina Napp-Avelli MWF 10:00am - 10:50am	Seats (Total: 27) HJP 2217
0401	Michael Krell MWF 2:00pm - 2:50pm	Seats (Total: 25) KNI 1103

MATH213 **Elements of Geometry and Measurement**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

0101	Samuel Dipasqua MWF 9:00am - 9:50am	Seats (Total: 27) MTH B0425
0201	Samuel Dipasqua MWF 10:00am - 10:50am	Seats (Total: 27) MTH B0425

MATH214 **Elements of Probability and Statistics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Early Childhood Education; Special Education; Elementary Education).

Permutations and combinations; probability; collecting and representing data; using statistics to analyze and interpret data.

0201	Karen McLaren MWF 9:00am - 9:50am	Seats (Total: 25) MTH 1311	

MATH240 Introduction to Linear Algebra

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141). Credit only granted for: MATH240, MATH341, or MATH461.

Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

0111	Wiseley Wong MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0112	Wiseley Wong MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 0403	Discussion
0121	Wiseley Wong MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0122	Wiseley Wong MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH 0403	Discussion
0131	Wiseley Wong MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion

0132	Wiseley Wong MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0141	Wiseley Wong MWF 10:00am - 10:50am TuTh 3:00pm - 3:50pm	Seats (Total: 30) ARM 0135 MTH B0427	Discussion
0142	Wiseley Wong MWF 10:00am - 10:50am TuTh 3:00pm - 3:50pm	Seats (Total: 30) ARM 0135 MTH 0407	Discussion
0211	Terence Long MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion
0212	Terence Long MWF 11:00am - 11:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0221	Terence Long MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion
0222	Terence Long MWF 11:00am - 11:50am TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0231	Terence Long MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion
0232	Terence Long MWF 11:00am - 11:50am TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0241	Terence Long MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 30) ARM 0131 MTH B0429	Discussion

0242	Terence Long MWF 11:00am - 11:50am TuTh 3:00pm - 3:50pm	Seats (Total: 30) ARM 0131 MTH 0307	 Discussion
0311	Nathan Manning MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 0307	 Discussion
0312	Nathan Manning MWF 1:00pm - 1:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0135 MTH 1313	 Discussion
0321	Nathan Manning MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 0303	 Discussion
0322	Nathan Manning MWF 1:00pm - 1:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0135 MTH 1313	 Discussion
0331	Nathan Manning MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH 0303	 Discussion
0332	Nathan Manning MWF 1:00pm - 1:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 30) ARM 0135 MTH 1313	 Discussion
0341	Nathan Manning MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH 0201	 Discussion
0342	Nathan Manning MWF 1:00pm - 1:50pm TuTh 2:00pm - 2:50pm	Seats (Total: 30) ARM 0135 MTH 0405	 Discussion
0411	Matthew Welsh MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 25) IRB 0318 MTH 0405	 Discussion

0412	Matthew Welsh MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 25) IRB 0318 MTH 0102	Discussion
0413	Matthew Welsh MWF 10:00am - 10:50am TuTh 1:00pm - 1:50pm	Seats (Total: 23) IRB 0318 BPS 1228	Discussion
0414	Matthew Welsh MWF 10:00am - 10:50am TuTh 2:00pm - 2:50pm	Seats (Total: 23) IRB 0318 BPS 1228	Discussion

MATH241 **Calculus III**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

All sections will use MATLAB.

0111	Kendall Williams MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ARM 0126 MTH 0405	Discussion
0112	Kendall Williams MWF 9:00am - 9:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0121	Kendall Williams MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 30) ARM 0126 MTH 0405	Discussion
0122	Kendall Williams MWF 9:00am - 9:50am TuTh 9:00am - 9:50am	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0131	Kendall Williams MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0405	Discussion

0132	Kendall Williams MWF 9:00am - 9:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0141	Kendall Williams MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0405	Discussion
0142	Kendall Williams MWF 9:00am - 9:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH B0429	Discussion
0211	Xiaoqi Huang MWF 10:00am - 10:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0221	Xiaoqi Huang MWF 10:00am - 10:50am TuTh 9:00am - 9:50am	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0231	Xiaoqi Huang MWF 10:00am - 10:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0131 MTH 0307	Discussion
0241	Xiaoqi Huang MWF 10:00am - 10:50am TuTh 12:00pm - 12:50pm	Seats (Total: 30) ARM 0131 MTH 0405	Discussion
0311	Patrick Brosnan MWF 11:00am - 11:50am TuTh 8:00am - 8:50am	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0321	Patrick Brosnan MWF 11:00am - 11:50am TuTh 9:00am - 9:50am	Seats (Total: 30) ARM 0126 MTH 0407	Discussion
0331	Patrick Brosnan MWF 11:00am - 11:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH 0407	Discussion

0332	Patrick Brosnan MWF 11:00am - 11:50am TuTh 10:00am - 10:50am	Seats (Total: 30) ARM 0126 MTH B0427	Discussion
0341	Patrick Brosnan MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH 0403	Discussion
0342	Patrick Brosnan MWF 11:00am - 11:50am TuTh 11:00am - 11:50am	Seats (Total: 30) ARM 0126 MTH B0427	Discussion
0411	Jonathan Rosenberg MWF 12:00pm - 12:50pm TuTh 8:00am - 8:50am	Seats (Total: 30) ESJ 0224 MTH 0201	Discussion
0421	Jonathan Rosenberg MWF 12:00pm - 12:50pm TuTh 9:00am - 9:50am	Seats (Total: 30) ESJ 0224 MTH 0201	Discussion
0431	Jonathan Rosenberg MWF 12:00pm - 12:50pm TuTh 10:00am - 10:50am	Seats (Total: 30) ESJ 0224 MTH 0201	Discussion
0441	Jonathan Rosenberg MWF 12:00pm - 12:50pm TuTh 11:00am - 11:50am	Seats (Total: 30) ESJ 0224 MTH 0201	Discussion
0511	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 10:00am - 10:50am	Seats (Total: 31) ARM 0131 ESJ 1215	Discussion
0512	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 10:00am - 10:50am	Seats (Total: 31) ARM 0131 ESJ 1215	Discussion
0521	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 31) ARM 0131 ESJ 1215	Discussion

0522	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 11:00am - 11:50am	Seats (Total: 31) ARM 0131 ESJ 1215	 Discussion
0531	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 12:00pm - 12:50pm	Seats (Total: 31) ARM 0131 ESJ 1215	 Discussion
0541	Justin Wyss-Gallifent MWF 2:00pm - 2:50pm TuTh 1:00pm - 1:50pm	Seats (Total: 31) ARM 0131 ESJ 1215	 Discussion

MATH241H **Calculus III**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH241 or MATH340.

Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

For general honors students only. MATH241H will use MATLAB.

0101	Allan Yashinski MF 10:00am - 10:50am W 10:00am - 11:50am	Seats (Total: 24) MTH 0106 MTH 0106	
0201	Kendall Williams MF 11:00am - 11:50am W 11:00am - 12:50pm	Seats (Total: 24) MTH 0103 MTH 0103	
0301	Xiaoqi Huang MF 1:00pm - 1:50pm W 1:00pm - 2:50pm	Seats (Total: 24) MTH 0201 MTH 0201	

MATH246 **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

All sections will use MATLAB.

0111	James Hanson MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0112	James Hanson MWF 10:00am - 10:50am Tu 8:00am - 8:50am	Seats (Total: 25) ARM 0126 MTH 0411	Discussion
0121	James Hanson MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0122	James Hanson MWF 10:00am - 10:50am Tu 9:00am - 9:50am	Seats (Total: 25) ARM 0126 MTH 0411	Discussion
0131	James Hanson MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0132	James Hanson MWF 10:00am - 10:50am Tu 11:00am - 11:50am	Seats (Total: 25) ARM 0126 MTH 0411	Discussion
0141	James Hanson MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0142	James Hanson MWF 10:00am - 10:50am Tu 12:00pm - 12:50pm	Seats (Total: 25) ARM 0126 MTH 0411	Discussion
0211	David Hamilton MWF 1:00pm - 1:50pm Tu 8:00am - 8:50am	Seats (Total: 25) ESJ 1224 MTH B0425	Discussion
0221	David Hamilton MWF 1:00pm - 1:50pm Tu 9:00am - 9:50am	Seats (Total: 25) ESJ 1224 MTH B0425	Discussion

0231	David Hamilton MWF 1:00pm - 1:50pm Tu 10:00am - 10:50am	Seats (Total: 25) ESJ 1224 MTH B0425	Discussion
0241	David Hamilton MWF 1:00pm - 1:50pm Tu 11:00am - 11:50am	Seats (Total: 25) ESJ 1224 MTH B0425	Discussion
0411	Rodrigo Trevino TuTh 12:30pm - 1:45pm F 8:00am - 8:50am	Seats (Total: 25) ARM 0131 MTH 1308	Discussion
0421	Rodrigo Trevino TuTh 12:30pm - 1:45pm F 9:00am - 9:50am	Seats (Total: 25) ARM 0131 MTH 1308	Discussion
0431	Rodrigo Trevino TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 25) ARM 0131 MTH 1308	Discussion
0441	Rodrigo Trevino TuTh 12:30pm - 1:45pm F 12:00pm - 12:50pm	Seats (Total: 25) ARM 0131 MTH 1308	Discussion
0501	Alice Wang TuTh 9:30am - 10:45am	Seats (Total: 34) CSI 2118	

MATH246H **Differential Equations for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141. Credit only granted for: MATH246 or MATH341.

An introduction to the basic methods of solving ordinary differential equations. Equations of first and second order, linear differential equations, Laplace transforms, numerical methods and the qualitative theory of differential equations.

For general honors students only. MATH241H will use MATLAB.

0101	Francisco Arana Herrera MWF 10:00am - 10:50am	Seats (Total: 24) MTH 0403

MATH274 **History of Mathematics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: IE

Prerequisite: MATH120, MATH130, MATH136, or MATH140; or must have completed MATH220.

An overview of aspects in the history of mathematics from its beginning in the concrete problem solving of ancient times through the development of abstraction in the 19th and 20th centuries. The course considers both mathematical ideas and the context in which they developed in various civilizations around the world.

0101	Yanir Rubinstein TuTh 2:00pm - 3:15pm	Seats (Total: 20) MTH 0411

MATH299A **Selected Topics in Mathematics; Special Topics in Study Abroad II: Introduction to Mathematical Computing**

Credits: 3 | Grading Method: Regular

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH299B **Selected Topics in Mathematics; Putnam Express**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Roohollah Ebrahimian W 4:00pm - 5:30pm	Seats (Total: 20) MTH 0102

MATH299R **Selected Topics in Mathematics; STIC: Ripping Logic at the Seams: The Philosophical Foundations of Math**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Terence Long F 3:00pm - 3:50pm	Seats (Total: 25) ESJ B0320

MATH299W **Selected Topics in Mathematics; STIC: Mathematics and Art**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

0101	Niranjan Ramachandran F 10:00am - 10:50am	Seats (Total: 25) PHY 2208

MATH310 **Introduction to Mathematical Proof**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH141; and must have completed or be concurrently enrolled in MATH240, MATH341, or MATH461; and must have completed or be concurrently enrolled in MATH241 or MATH340. Restriction: Must be in a major within the CMNS-Mathematics department; or permission of the CMNS-Mathematics department. Additional information: Math majors may not use this course to satisfy an upper-level requirement.

To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

0101	Yihang Zhu MWF 9:00am - 9:50am	Seats (Total: 27) PHY 2211
0201	Kathryn Truman MWF 1:00pm - 1:50pm	Seats (Total: 27) PHY 2124
0301	Steve Halperin MWF 11:00am - 11:50am	Seats (Total: 27) PHY 2213

MATH314 **Introduction to Probability, Data, Analysis and Statistics for Preservice Middle School Teachers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH214. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH314 or STAT100.

Analysis of bivariate data, probability and randomness, law of large numbers, central limit theorem, probabilities for independent and dependent events, counting techniques, random variables and probability distributions, expected values, sampling distributions, and confidence intervals.

0101	Veronica Carlan TuTh 2:00pm - 3:15pm	Seats (Total: 20) ASY 3215

MATH315 **Algebra for Preservice Middle School Teachers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH212. Restriction: Must be in one of the following programs (Elementary Education; Special Education; Middle School Education). Credit only granted for: MATH113 or MATH315.

Algebraic concepts and techniques developed in the middle grades, with their larger mathematical context. Equations, inequalities and functions (linear, polynomial, exponential, logarithmic), with multiple representations of relationships. Common misconceptions of beginning algebra students.

0101	Carolina Napp-Avelli W 12:30pm - 3:00pm	Seats (Total: 20) TWS 1106

MATH340 **Multivariable Calculus, Linear Algebra and Differential Equations I (Honors)**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141 and MATH140; and permission of CMNS-Mathematics department; and permission will be granted only to incoming freshmen. Credit only granted for: MATH241 or MATH340.

First semester of the MATH340-341 sequence which gives a unified and enriched treatment of multivariable calculus, linear algebra and ordinary differential equations, with supplementary material from subjects such as differential geometry, Fourier series and calculus of variations. Students completing MATH340-341 will have covered the material of MATH240, MATH241, and MATH246, and may not also receive credit for MATH240, MATH241 or MATH246.

0101	Roohollah Ebrahimian MWF 10:00am - 11:15am	Seats (Total: 30) MTH 0401
0201	Wiseley Wong MWF 12:00pm - 1:15pm	Seats (Total: 30) PHY 1204

MATH386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS Mathematics Department.

Contact department for information to register for this course.

MATH401 **Applications of Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

0101	Nathan Manning MWF 9:00am - 9:50am	Seats (Total: 35) CSI 3117

0201	Raluca Rosca MWF 11:00am - 11:50am	Seats (Total: 32) CHM 1224
0301	Matthias Wellershoff MWF 12:00pm - 12:50pm	Seats (Total: 32) PHY 2106
0501	Tamas Darvas TuTh 12:30pm - 1:45pm	Seats (Total: 32) PHY 1402
0601	Ricardo Nochetto TuTh 2:00pm - 3:15pm	Seats (Total: 30) MTH 0302
0701	Shalin Parekh MWF 12:00pm - 12:50pm	Seats (Total: 32) PHY 1219

MATH402 **Algebraic Structures**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461). Restriction: Must not be in any of the following programs (Mathematics (Master's); Mathematics (Doctoral)). Credit only granted for: MATH402 or MATH403.

For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

0101	Steven Chadwick MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH 1313

MATH403 **Introduction to Abstract Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH340); and 1 course with a minimum grade of C- from (MATH341, MATH241); and minimum grade of C- in MATH310. Or students who have taken courses with comparable content may contact the department. Credit only granted for: MATH402 or MATH403.

Integers; groups, rings, integral domains, fields.

0101	Justin Wyss-Gallifent MWF 10:00am - 10:50am	Seats (Total: 33) PHY 2214

0201	Christian Zickert TuTh 11:00am - 12:15pm	Seats (Total: 30) CHM 2201

MATH405 **Linear Algebra**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and minimum grade of C- in MATH310.

An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

0101	Harry Tamvakis MWF 12:00pm - 12:50pm	Seats (Total: 32) MTH 0201
0201	Roohollah Ebrahimian MWF 3:00pm - 3:50pm	Seats (Total: 32) PHY 2124

MATH406 **Introduction to Number Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH241, MATH246, MATH340, MATH341, MATH461); or permission of CMNS-Mathematics department.

Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

0101	Peter Dillery MWF 12:00pm - 12:50pm	Seats (Total: 32) PHY 2124
0201	Lutian Zhao TuTh 11:00am - 12:15pm	Seats (Total: 32) PHY 2208
0301	William Goldman TuTh 12:30pm - 1:45pm	Seats (Total: 32) EGR 3106

MATH410 **Advanced Calculus I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241); and minimum grade of C- in MATH310.

Subjects covered: sequences and series of numbers, continuity and differentiability of real-valued functions of one variable, the Riemann integral, sequences of functions and power series.

0101	Denny Gulick MWF 10:00am - 10:50am	Seats (Total: 32) PHY 2122
0201	Lei Chen MWF 11:00am - 11:50am	Seats (Total: 32) PHY 2106
0301	Stefan Doboszczak MWF 12:00pm - 12:50pm	Seats (Total: 32) MTH 0306
0401	Roohollah Ebrahimian MWF 1:00pm - 1:50pm	Seats (Total: 32) MTH B0421
0501	Shiferaw Berhanu MWF 2:00pm - 2:50pm	Seats (Total: 32) PHY 2106
0601	James Conway TuTh 9:30am - 10:45am	Seats (Total: 32) MTH B0421

MATH411 **Advanced Calculus II**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH410; and permission of CMNS-Mathematics department.

Continuation of MATH410. Topics include: The topology of sets in Rn, the derivative matrix, the general chain rule, inverse and implicit function theorems with applications, smooth curves and surfaces in R3, Lagrange multipliers. Additional topics may include: Metric spaces, the contraction principle, the existence and uniqueness theorem for nonlinear first order differential equations, the Riemann integral of Rn, introduction to integration on curves and surfaces, Green's theorem.

0101	Kendall Williams MWF 2:00pm - 2:50pm	Seats (Total: 28) MTH 0103
0201	Antoine Mellet TuTh 9:30am - 10:45am	Seats (Total: 28) EGR 2154

MATH416 **Applied Harmonic Analysis: An Introduction to Signal Processing**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and familiarity with MATLAB is required.

Introduces students to the mathematical concepts arising in signal analysis from the applied harmonic analysis point of view. Topics include applied linear algebra, Fourier series, discrete Fourier transform, Fourier transform, Shannon Sampling Theorem, wavelet bases, multiresolution analysis, and discrete wavelet transform.

0101	Wojciech Czaja	Seats (Total: 20)
	MWF 9:00am - 9:50am	PHY 2122

MATH424 **Introduction to the Mathematics of Finance**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and 1 course with a minimum grade of C- from (STAT400, STAT410); and permission of CMNS-Mathematics department. Recommended: MATH246, MATH240, MATH241, MATH340, or MATH341. Credit only granted for: BMGT444, MATH424.

Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito's Lemma; the Black-Scholes equation and its conversion to the heat equation.

0101	Dionisios Margetis	Seats (Total: 32)
	TuTh 9:30am - 10:45am	ITV 1100

MATH430 **Euclidean and Non-Euclidean Geometries**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461).

Hilbert's axioms for Euclidean geometry. Neutral geometry: the consistency of the hyperbolic parallel postulate and the inconsistency of the elliptic parallel postulate with neutral geometry. Models of hyperbolic geometry. Existence and properties of isometries.

0101	Karin Melnick	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH B0429

MATH431 **Geometry for Computer Applications**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341).

Topics from projective geometry and transformation geometry, emphasizing the two-dimensional representation of three-dimensional objects and objects moving about in the plane and space. The emphasis will be on formulas and algorithms of immediate use in computer graphics.

0101	William Goldman	Seats (Total: 25)
	TuTh 9:30am - 10:45am	EGR 0135

MATH432 **Introduction to Topology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH410.

Metric spaces, topological spaces, connectedness, compactness (including Heine-Borel and Bolzano-Weierstrass theorems), Cantor sets, continuous maps and homeomorphisms, fundamental group (homotopy, covering spaces, the fundamental theorem of algebra, Brouwer fixed point theorem), surfaces (e.g., Euler characteristic, the index of a vector field, hairy sphere theorem), elements of combinatorial topology (graphs and trees, planarity, coloring problems).

0101	Boyu Zhang	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	PLS 1115

MATH436 **Differential Geometry of Curves and Surfaces I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH461, MATH240, MATH341); and must have completed two 400-level MATH courses with a minimum grade of C- (not including MATH461, and 480's).

Curves in the plane and Euclidean space, moving frames, surfaces in Euclidean space, orientability of surfaces; Gaussian and mean curvatures; surfaces of revolution, ruled surfaces, minimal surfaces, special curves on surfaces, "Theorema Egregium"; the intrinsic geometry of surfaces.

0101	Daniel Cristofaro-Gardiner	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH 0303

MATH445 **Elementary Mathematical Logic**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141.

Elementary development of propositional and predicate logic, including semantics and deductive systems and with a discussion of completeness, incompleteness and the decision problem.

0101	James Hanson	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0407

MATH452 **Introduction to Dynamics and Chaos**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH341; or MATH246 and one of (MATH240 or MATH461). Cross-listed with: AMSC452. Credit only granted for: AMSC452 or MATH452.

An introduction to mathematical dynamics and chaos. Orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics.

0101	Rodrigo Trevino	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	MTH 0102

MATH456 **Cryptography**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (CMSC106, CMSC131, or ENEE150; or equivalent programming experience); and (2 courses from (CMSC330, CMSC351, ENEE324, or ENEE380); or any one of these courses and a 400-level MATH course, or two 400-level MATH courses); and Permission of CMNS-Mathematics department or permission of instructor. Cross-listed with: CMSC456, ENEE456. Credit only granted for: MATH456, CMSC456 or ENEE456.

The theory, application, and implementation of mathematical techniques used to secure modern communications. Topics include symmetric and public-key encryption, message integrity, hash functions, block-cipher design and analysis, number theory, and digital signatures.

0101	Nathan Manning	Seats (Total: 50)
	MWF 10:00am - 10:50am	CSI 3117
0201	Daniel Gottesman	Seats (Total: 95)
	TuTh 12:30pm - 1:45pm	IRB 0318

MATH461 **Linear Algebra for Scientists and Engineers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum grade of C- in MATH141; and must have completed a MATH or STAT course with a prerequisite of MATH141. Credit only granted for: MATH240, MATH341, or MATH461. Additional information: This course may not be used towards the upper level math requirements for MATH/STAT majors.

Basic concepts of linear algebra. This course is similar to MATH240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

0111	Allan Yashinski MWF 2:00pm - 2:50pm Tu 1:00pm - 1:50pm	Seats (Total: 25) ARM 0126 PHY 2106	Discussion
0112	Allan Yashinski MWF 2:00pm - 2:50pm Tu 1:00pm - 1:50pm	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0121	Allan Yashinski MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) ARM 0126 PHY 2106	Discussion
0122	Allan Yashinski MWF 2:00pm - 2:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) ARM 0126 MTH 0401	Discussion
0131	Allan Yashinski MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 25) ARM 0126 PHY 2106	Discussion
0132	Allan Yashinski MWF 2:00pm - 2:50pm Tu 3:00pm - 3:50pm	Seats (Total: 25) ARM 0126 MTH 0401	Discussion

MATH462 **Partial Differential Equations**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340); and 1 course with a minimum grade of C- from (MATH246, MATH341).

Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

0101	Allan Yashinski MWF 1:00pm - 1:50pm	Seats (Total: 35) PHY 2211

MATH463 **Complex Variables**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH241, MATH340).

The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

0101	David Hamilton MWF 11:00am - 11:50am	Seats (Total: 27) MTH 0411
0201	Antoine Mellet TuTh 12:30pm - 1:45pm	Seats (Total: 27) MTH 0101

MATH464 **Transform Methods**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH246, MATH341).

Fourier transform, Fourier series, discrete fast Fourier transform (DFT and FFT). Laplace transform. Poisson summations, and sampling. Optional Topics: Distributions and operational calculus, PDEs, Wavelet transform, Radon transform and applications such as Imaging, Speech Processing, PDEs of Mathematical Physics, Communications, Inverse Problems.

0101	Dionisios Margetis TuTh 12:30pm - 1:45pm	Seats (Total: 20) MTH 1308

MATH475 **Combinatorics and Graph Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH341, MATH461); and 1 course with a minimum grade of C- from (MATH241, MATH340); and permission of CMNS-Mathematics department. Cross-listed with CMSC475. Credit only granted for: MATH475 or CMSC475.

General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

0101	Wiseley Wong MWF 2:00pm - 2:50pm	Seats (Total: 32) PHY 1204

MATH489 **Research Interactions in Mathematics; Research Interactions in Mathematics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

Contact department for information to register for this course.

MATH498A **Selected Topics in Mathematics**

(Perm req)

Credits: 1-9 Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

Contact department for information to register for this course.

MATH600 **Abstract Algebra I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH405 and MATH403; or students who have taken courses with comparable content may contact the department.

Groups with operators, homomorphism and isomorphism theorems, normal series, Sylow theorems, free groups, Abelian groups, rings, integral domains, fields, modules. Topics may include HOM (A,B), Tensor products, exterior algebra.

Offered fall only.

0101	Amin Gholampour	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	MTH 0101

MATH606 **Algebraic Geometry I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH600 and MATH601.

Prime and primary ideals in Noetherian rings, Hilbert Nullstellensatz, places and valuations, prevarieties (in the sense of Serre), dimension, morphisms, singularities, varieties, schemes, rationality.

0101	Patrick Brosnan	Seats (Total: 20)
	MWF 12:00pm - 12:50pm	PHY 4222

MATH630 **Real Analysis I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department.

Lebesgue measure and the Lebesgue integral on R, differentiation of functions of bounded variation, absolute continuity and fundamental theorem of calculus, Lp spaces on R, Riesz-Fischer theorem, bounded linear functionals on Lp, measure and outer measure, Fubini's theorem.

0101	Huy Nguyen	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PHY 2124

MATH632 **Functional Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH631.

Introduction to functional analysis and operator theory: normed linear spaces, basic principles of functional analysis, bounded linear operators on Hilbert spaces, spectral theory of selfadjoint operators, applications to differential and integral equations, additional topics as time permits.

0101	Jonathan Rosenberg	Seats (Total: 20)
	MWF 9:00am - 9:50am	PHY 2214

MATH642 **Dynamical Systems I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH432. And MATH630; or students who have taken courses with comparable content may contact the department.

Foundations of topological dynamics, homeomorphisms, flows, periodic and recurrent points, transitivity and minimality, symbolic dynamics. Elements of ergodic theory, invariant measures and sets, ergodicity, ergodic theorems, mixing, spectral theory, flows and sections. Applications of dynamical systems to number theory, the Weyl theorem, the distribution of values of polynomials, Vander Waerden's theorem on arithmetic progressions.

0101	Dmitry Dolgopyat	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	CHM 1228

MATH669 **Selected Topics in Riemann Surfaces**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Construction of Riemann surfaces, hyperbolic geometry, Fuchsian and Kleinian groups, potential theory, uniformisation spaces of meromorphic functions, line bundles, Picard variety, Riemann-Roch, Teichmueller theory.

0101	Harry Tamvakis	Seats (Total: 20)
	MWF 10:00am - 10:50am	MTH 0104

MATH673 **Partial Differential Equations I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH411; or students who have taken courses with comparable content may contact the department. Cross-listed with: AMSC673. Credit only granted for: AMSC673 or MATH673.

Analysis of boundary value problems for Laplace's equation, initial value problems for the heat and wave equations. Fundamental solutions, maximum principles, energy methods. First order nonlinear PDE, conservation laws. Characteristics, shock formation, weak solutions. Distributions, Fourier transform.

Offered fall only.

0101	Jacob Bedrossian TuTh 12:30pm - 1:45pm	Seats (Total: 20) ITV 1100

MATH689 **Research Interactions in Mathematics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

MATH695 **Teaching Seminar**

Credits: 1 Grading Method: Regular

Restriction: Must be in one of the following programs (Mathematics (Doctoral); Mathematics (Master's); Mathematical Statistics (Doctoral); Applied Mathematics and Scientific Computation (Master's); Mathematical Statistics (Master's); Applied Mathematics and Scientific Computation (Doctoral)).

A course intended for first year teaching assistants. Topics include: everyday mechanics of teaching; teaching methods and styles; technology; course enrichment, diversity in the classroom; sexual harassment; teacher-student interactions; presentations by students.

0101	Terence Long W 4:00pm - 5:30pm	Seats (Total: 35) MTH B0421

MATH712 **Mathematical Logic I**

Credits: 3 Grading Method: Regular, Audit

Sentential logic, first-order languages, models and formal deductions. Basic model theory including completeness and compactness theorems, other methods of constructing models, and applications such as non-standard analysis.

0101	Michael Laskowski	Seats (Total: 18)
	MWF 11:00am - 11:50am	MTH 0102

MATH730 **Fundamental Concepts of Topology**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH403, MATH410, and MATH411; or students who have taken courses with comparable content may contact the department.

Survey of basic point set topology, fundamental group, covering spaces, Van Kampen's theorem, simplicial complexes, simplicial homology, Euler characteristics and classification of surfaces.

0101	Christian Zickert	Seats (Total: 18)
	TuTh 2:00pm - 3:15pm	MTH 0402

MATH742 **Geometric Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH673 and MATH674; or MATH740.

Calculus of Variations, Bochner technique, Morse theory, weak solutions and elliptic regularity, maximum principle for elliptic and parabolic equations, Green's function of the Laplacian, isoperimetric and Sobolev inequalities, continuity method, curvature and comparison results, harmonic maps, curvature prescription problems.

0101	Antonio De Rosa	Seats (Total: 18)
	TuTh 9:30am - 10:45am	PHY 4222

MATH744 **Lie Groups I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MATH405, MATH403, MATH411, and MATH432; or students who have taken courses with comparable content may contact the department.

An introduction to the fundamentals of Lie groups, including some material on groups of matrices and Lie algebras.

0101	Karin Melnick	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH 0105

MATH799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MATH808A **Selected Topics in Algebra**

Credits: 1-3 Grading Method: Regular

Advanced topics of current interest.

Contact department for information to register for this course.

MATH808N **Selected Topics in Algebra; Canonical Models of Shimura Varieties**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Michael Rapoport	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH 1308

MATH808T **Selected Topics in Algebra; Introduction to the geometric Langlands program**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Thomas Haines	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 1308

MATH818A **Selected Topics in Logic**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH818D **Selected Topics in Logic; Descriptive Set Theory and Polish Group**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Christian Rosendal	Seats (Total: 20)
	TuTh 9:30am - 10:45am	HBK 0108

MATH848A **Selected Topics in Geometry and Topology**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH848V **Selected Topics in Geometry and Topology; Topics in Geometric Analysis**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Yanir Rubinstein	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 0302

MATH858A **Selected Topics in Analysis**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH858K **Selected Topics in Analysis; Harmonic Analysis and Ergodic Theory**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Adam Kanigowski	Seats (Total: 20)
	TuTh 9:30am - 10:45am	PLS 1115

MATH858L **Selected Topics in Analysis; Mathmatical Methods in Machine Learning**

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Advanced topics of current interest.

0101	Wojciech Czaja	Seats (Total: 20)
	MWF 11:00am - 11:50am	MTH 1311

MATH868A **SelectedTopics in Complex Analysis**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

MATH898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MATH899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES498I **Topics in Marine-Estuarine-Environmental Sciences; Chesapeake Bay Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

Jointly offered with MEES698I. Credit only granted for MEES498I or MEES698I. Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Carys Mitchelmore MW 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES607 **Quantitative Methods in Environmental Sciences**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MATH120 and MATH121; or must have completed MATH220 and MATH221; or students who have taken courses with comparable content may contact the department. Credit only granted for: MEES607 or MEES698G. Formerly: MEES698G.

Mathematical approaches and solutions (both analytical and numerical) that cut across environmental disciplines, and will introduce analytical techniques.

0101	Lawrence Sanford TuTh 12:30pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 20) Location: TBA Location: TBA

MEES608B **Seminar in Marine-Estuarine-Environmental Sciences; Responsible Conduct of Research**

Credits: 1 Grading Method: Regular, Audit

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Thomas Miller, Russell Hill Tu 2:00pm - 2:50pm	Seats (Total: 30) Location: TBA

MEES608D **Seminar in Marine-Estuarine-Environmental Sciences; Scientific Writing and Communication**

Credits: 2 Grading Method: Regular, Audit

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Elizabeth North F 9:00am - 10:50am	Seats (Total: 24) Location: TBA

MEES608O **Seminar in Marine-Estuarine-Environmental Sciences; Topics in OMICS**

Credits: 1 Grading Method: Regular, Audit

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Shao Du, Jum Sook Chung F 12:00pm - 12:50pm	Seats (Total: 20) Location: TBA

MEES620 **Environment and Society**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with: ANTH620. Credit only granted for: ANTH620 or MEES620. Additional information: Offered over the interactive video network.

Students will obtain foundational knowledge of core theories and methods that integrate cultural and socio-economic research into environmental science. Key topics include: coupled natural and human systems, cultural models of the environment, social networks, ecological economics, political ecology, environmental justice, and science communication.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Jana Kopelentova Rehak, William Dennison, Kenneth Rose Th 2:00pm - 4:45pm	Seats (Total: 20) Location: TBA

MEES640 **Interconnected Earth Systems: Land, Ocean, and Estuary**

Credits: 3 Grading Method: Regular, Audit

Explores the interconnected physical and biogeochemical systems of land, estuary, and ocean with cross cutting themes of human impacts and global change. Broad concepts will be combined with targeted interactive case studies to demonstrate how these systems are linked by humans, climate, and water.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Michael Gonsior, Mark Castro, Cindy Palinkas, Laura Lapham, Andrea Pain TuTh 11:00am - 12:20pm	Seats (Total: 20) Location: TBA

MEES650 **Advanced Wetland Ecology**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: BIOM301; and ENST360 or other ecology equivalent; or permission of AGNR-Environmental Science and Technology department; or permission of CMNS-Marine & Estuarine-Environmental Science Program). Cross-listed with: ENST650. Jointly offered with: ENST450, MEES650. Credit only granted for: ENST450, ENST650, or MEES650. Additional information: Wading boots (at least hip length) are strongly recommended.

Plant and animal communities, biogeochemistry, and ecosystem properties of wetlands. Lectures are supplemented by field trips (normally 2 days total during the semester) and in-class labs. Hands-on activities and exercises include identification of wetland plant species, wetland mapping and delineation, and collection and analysis of field data on wetland vegetation, soil, and hydrology. Wading boots (at least hip length) are strongly recommended.

0101	Andrew Baldwin	Seats (Total: 5)
	TuTh 2:00pm - 3:15pm	ANS 0538

MEES660 **Ecological Systems**

Credits: 3 Grading Method: Regular, Audit

An introduction to the field of ecology is provided for matriculating graduate students and prepares them for more advanced concepts. Students will be exposed to ecology both in theory and practice through lectures, readings, and quantitative exercises, round table debates and discussions with current practitioners.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Ryan Woodland, Robert Hilderbrand, Christopher Rowe, Lora Harris, Mark Cochrane	Seats (Total: 20)
	MW 12:30pm - 1:50pm	Location: TBA

MEES663 **Ecological Genomics**

Credits: 3 Grading Method: Regular, Audit

New technologies in genomics, especially next-generation sequencing, have revolutionized the fields of ecology and evolutionary biology across all hierarchical levels of biological organization. Within virtually any species, we can now study genetic diversity and gene expression across the entire genome to understand adaptation to current environments and responses to global change. In multi-species contexts, we now have the tools to understand the importance of interspecific gene flow in adaptation, determine the role of genetic diversity in community composition, and characterize the diversity and function of cryptic organisms, such as microbes, in communities and ecosystems. This course will cover the major research topics in ecological genomics, considering individual, population, interspecific, and community and ecosystem hierarchical levels. The course will comprise lectures, student-led discussions of primary literature exemplifying applications of genomics to contemporary environmental problems, and hands-on experience manipulating and analyzing real genomic data sets with the latest bioinformatic tools in the UNIX/Linux and R environments.

0101	Louis Plough, Clara Fuchsman, Rodney Richardson MW 2:00pm - 3:20pm	Seats (Total: 20) Location: TBA

MEES680 **Cell and Molecular Biology for the Environmental Scientist- From Genes to Ecosystems**

Credits: 3 Grading Method: Regular, Audit

Introduces environmental scientists to the methods and approaches that are the foundations for today's breakthroughs in molecular and cellular biology. Detailed examination of papers published in the last few years along with online background materials will be used to reinforce the connection of key concepts to experimentation.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Allen Place, Yantao Li MW 8:00am - 9:20am	Seats (Total: 20) ONLINE

MEES682 **Fishery Science and Management**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of instructor.

Aquatic production and fisheries yields. Introduction to fish population dynamics and assessment methods. Effects of fishing on resource potential yields. Causes of fluctuations in resource abundance. An emphasis on the relationship between science and management.

0101	Michael Wilberg, Genevieve Nesslage MW 2:00pm - 3:30pm	Seats (Total: 20) Location: TBA

MEES698B **Special Topics in Marine-Estuarine-Environmental Sciences; Environmental Statistics I**

Credits: 3

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Vyacheslav Lyubchich	Seats (Total: 35)
	MW 9:30am - 10:50am	Location: TBA

MEES698C **Special Topics in Marine-Estuarine-Environmental Sciences; Spatial Ecology in R**

Credits: 3

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed. Many ecological questions in terrestrial and marine systems originate from the observation that organisms and the ecological processes that influence them vary in space. This course emphasizes the study of spatial ecological patterns (including animal movement), the processes that generate and maintain these patterns and processes, and the construction of models in R to analyze, simulate, and understand the interplay between spatial pattern, ecological processes, and scale. The objective of the course is to introduce students to ecological theories and concepts relevant to the study of spatial ecological patterns in terrestrial and marine systems, while providing the R skills necessary to articulate and answer scientific questions by confronting models with data.

0101	Emily Cohen, Matthew Fitzpatrick	Seats (Total: 20)
	MW 11:00am - 12:30pm	Location: TBA

MEES698E **Special Topics in Marine-Estuarine-Environmental Sciences; Ecosystem Restoration**

Credits: 3

Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Jointly offered with GEOL453 and GEOL789L. Overview of critical ecosystem functions across biomes/geologic settings emphasizing tradeoffs in restoration designs. Case studies illuminate structure's influence over biophysical and biogeochemical processes supporting ecosystems; then show how properties of physical, chemical, and ecosystem processes can be altered by different restoration strategies, to optimize ecosyst em services and habitat quality. Includesa semester research project.

0101	Sujay Kaushal	Seats (Total: 20)
	Tu 3:30pm - 6:30pm	PLS 1168

MEES698I **Special Topics in Marine-Estuarine-Environmental Sciences; Chesapeake Bay Health**

Credits: 3 Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Jointly offered with MEES498I. Credit only granted for MEES498I or MEES698I. Offered synchronously to all MEES partner institutions via video. Please contact the instructor(s) for access and logistical information as needed.

0101	Carys Mitchelmore	Seats (Total: 20)
	MW 11:00am - 12:20pm	Location: TBA

MEES698M **Special Topics in Marine-Estuarine-Environmental Sciences; Modeling Chemical Equilibrium in Natural Waters**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

0101	Johan Schijf	Seats (Total: 20)
	MW 8:00am - 9:20am	Location: TBA

MEES698W **Special Topics in Marine-Estuarine-Environmental Sciences; Chemistry of Natural Water**

Credits: 3 Grading Method: Regular, Audit

Credit according to time schedule and course organization. Lecture and/or laboratory series organized to study selected areas of environmental science not otherwise considered by existing courses. May be repeated for credit since topic coverage will change.

Cross-listed with ENCE651. Credit only granted for ENCE651 or MEES698W. Application of principles from chemical thermodynamics and kinetics to the study and interpretation of the chemical composition of natural waters is rationalized by considering metal ion solubility controls, pH, carbonate equilibria, adsorption reactions, redox reactions and the kinetics of oxygenation reactions which occur in natural water environments.

0101	Alba Torrents Capdevila	Seats (Total: 20)
	TuTh 8:00am - 9:15am	EGR 1102

MEES699 **Special Problems in Marine-Estuarine-Environmental Sciences**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Research on specialized topics under the direction of individual faculty members.

Contact department for information to register for this course.

MEES708X **Advanced Topics in Marine-Estuarine-Environmental Science; R Programming - Part 1 Module (Basics)**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

0101	Vyacheslav Lyubchich	Seats (Total: 30)
	Meets August 29, 2022 - October 14, 2022	
	Tu 3:30pm - 5:20pm	Location: TBA

MEES708Y **Advanced Topics in Marine-Estuarine-Environmental Science; R Programming - Part 2 Module (Advanced)**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Lectures, experimental courses and other specialized graduate training in various relevant disciplines.

0101	Vyacheslav Lyubchich	Seats (Total: 30)
	Meets October 17, 2022 - December 12, 2022	
	Tu 3:30pm - 5:20pm	Location: TBA

MEES718V **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Nature-Based Solutions for Coastal Adaptation**

Credits: 2 Grading Method: Regular, Audit

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

0101	Cindy Palinkas, Lorie Staver, William Nardin Th 9:00am - 10:50am	Seats (Total: 20) Location: TBA

MEES718Y **Study Groups on Issues in Marine Estuarine Enviornmental Sciences; Narrowing Knowledge Gaps in Support of an International Treaty to Combat Plastic Pollution**

Credits: 2 Grading Method: Regular, Audit

Active discussions on current environmental topics and issues. Efforts may result in manuscripts, technical report or innovative communication products.

0101	Eric Davidson F 1:00pm - 2:50pm	Seats (Total: 20) Location: TBA

MEES799 **Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MEES898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MEES899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH Maryland Institute for Applied Environmental Health Fall 2022

MIEH300 **A Public Health Perspective: Introduction to Environmental Health**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in CHEM131 and CHEM132; and must have completed or be concurrently enrolled in SPHL100 or PHSC300. Restriction: Must have earned a minimum of 60 credits; and must be in Public Health Science program; or permission of SPHL-School of Public Health. Credit only granted for: SPHL498N or MIEH300. Formerly: SPHL498N.

Environmental health is that branch of public health that deals with the human health effects of exposure to chemical, physical, and biological agents in the community, workplace, and home. Activities within Environmental Health Sciences are associated with recognizing, assessing, understanding, and mitigating the impacts of chemical, physical, and biological agents as well as understanding how human behavior and action impacts the environment. This course focuses on the central concepts, principles, issues, and applications of the essential scientific components and strategies of control of major environmental health problems.

0101	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 10:00am - 11:50am	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0102	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 12:00pm - 1:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0103	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 2:00pm - 3:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0104	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am W 4:00pm - 5:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0105	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 8:00am - 9:50am	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0106	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 10:00am - 11:50am	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0107	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 12:00pm - 1:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		
0108	Rianna Murray	Seats (Total: 20)	
	MW 9:00am - 9:50am F 2:00pm - 3:50pm	SPH 1312 SPH 0116A	Discussion
	Restricted to College Park students in the Public Health Science major.		

0109	Rianna Murray MW 9:00am - 9:50am W 10:00am - 11:50am	Seats (Total: 20) SPH 1312 PLS 1117	Discussion
	Restricted to College Park students in the Public Health Science major.		
ESG1	Andre Markon W 5:00pm - 7:30pm Class time/details on ELMs	Seats (Total: 35) BLD3 4219 ONLINE	Discussion
	Restricted to Shady Grove students in the Public Health Science major.		

MIEH309 **Environmental Health Research**

(Perm req)

Credits: 1-3 Grading Method: Regular

This research-based course will provide undergraduates with the opportunity to work closely with one of the faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Jennifer German, Donald Milton Contact instructor or department for details.	Seats (Total: 25)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 15)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)

0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)
0209	Rianna Murray Contact instructor or department for details.	Seats (Total: 5)
0210	Muhiuddin Haider Contact instructor or department for details.	Seats (Total: 5)

MIEH321 **Environmental Determinants of Emerging Infectious Diseases**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPHL100.

Examines the influences of environmental factors, economic development, migration, and land use changes on emergence and reemergence of infectious diseases. Explores how population growth, development, and climate change impact natural reservoirs of infectious diseases and how they are transmitted through human populations. Includes historical accounts, newly emerging and reemerging diseases.

0101	Sara Bazaco W 5:00pm - 7:30pm *Restricted to College Park students in the Public Health Science major.*	Seats (Total: 35) ONLINE

MIEH333 **Every Drop Counts: Water, Food and Global Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ENSP101 or MIEH300; or permission of department. Cross-listed with: ENSP360. Credit only granted for: MIEH333 or ENSP360.

In-depth interdisciplinary study of the public health issues related to water use for global food production. Topics will include accessibility and availability of safe water for agriculture worldwide, potential microbiological and chemical hazards in agricultural water, alternative water sources such as reclaimed wastewater and return flows, food safety approaches to managing agricultural water, and agricultural influences on surface and groundwater quality. Political, social, and economic factors relating to agricultural water will be addressed, with special focus on regions that are leaders in innovative water management and regions where access to clean water for agriculture is a major challenge.

0101	Leena Malayil M 9:00am - 10:30am Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE

MIEH400 **Introduction to Global Health**

Credits: 3 Grading Method: Regular General Education: DVUP

Prerequisite: Minimum grade of C- in MIEH300; and 1 course with a minimum grade of C- from (SPHL100, PHSC300). Restriction: Must be in the Public Health Science program or must have permission of the program director; and must have completed 60 credits. Credit only granted for: MIEH400 or SPHL498A. Formerly: SPHL498A.

Exploration of theoretical frameworks and practical perspectives on issues shaping the global health panorama. Determinants examined through: biological and epidemiological; social, cultural and economic; environmental and geographic; multi-section, legal and institutional perspectives with synopsis of how these issues are addressed by international and community organizations in developing countries.

0101	Amy Sapkota MW 3:00pm - 3:50pm Th 8:00am - 8:50am	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		
0102	Amy Sapkota MW 3:00pm - 3:50pm Th 9:30am - 10:20am	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		
0103	Amy Sapkota MW 3:00pm - 3:50pm Th 11:00am - 11:50am	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		
0104	Amy Sapkota MW 3:00pm - 3:50pm Th 12:30pm - 1:20pm	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		
0105	Amy Sapkota MW 3:00pm - 3:50pm Th 2:00pm - 2:50pm	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		
0106	Amy Sapkota MW 3:00pm - 3:50pm Th 3:30pm - 4:20pm	Seats (Total: 20) HJP 0226 SPH 0116B	Discussion
	Restricted to Public Health Science students at College Park.		

0107	Amy Sapkota MW 3:00pm - 3:50pm F 10:00am - 10:50am	Seats (Total: 20) HJP 0226 SPH 0307	Discussion
	Restricted to Public Health Science students at College Park.		
0108	Amy Sapkota MW 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 20) HJP 0226 SPH 0307	Discussion
	Restricted to Public Health Science students at College Park.		

MIEH600 **Foundations of Environmental Health**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: HLTH761 or MIEH600. Formerly: HLTH761.

Overview of the chemical, physical and biological hazards present in our living and working environment and their effects on human health. Topics include: exposure assessment, industrial hygiene and safety, pesticides, community and indoor pollution, food-borne diseases, solid and hazardous wastes, water resources, risk assessment, ecological issues and environmental laws.

0201	Rachel Goldstein W 10:00am - 11:30am Class time/details on ELMs	Seats (Total: 20) SPH 0305 ONLINE

MIEH605 **Fundamentals of Global Health**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: SPHL600 or SPHL698A. Formerly: SPHL698A.

Exploration of theoretical frameworks and practicial perspectives in global health with particular attention to the analysis of the biological, epidemiological, social, cultural and behavioral interactions that affect global health study and project implementation. The emphasis is on innovative solutions to health issues in underserved populations.

GH01	Muhiuddin Haider W 5:00pm - 7:00pm Class time/details on ELMs	Seats (Total: 20) ONLINE ONLINE

MIEH609 **Methods in Environmental Health**

Credits: 1-3 Grading Method: Regular

This research-based rotation in environmental health sciences will provide graduate students with the opportunity to work closely with faculty researchers in the Maryland Institute for Applied Environmental Health (MIAEH) within the School of Public Health. Our research covers multiple fields within the environmental health sciences (e.g. environmental epidemiology, exposure science, risk assessment, environmental microbiology, environmental microbiology, environmental microbial genomics, food toxicology, airborne infection transmission, environmental justice, and children's environmental health) that involve either laboratory-based research or non-laboratory based studies. Students will not only gain invaluable research experience and interpersonal skills but also contribute to MIAEH's ongoing environmental health research programs.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH688 **Seminar in the Maryland Institute for Applied Environmental Health: Current Topics in Environmental Health**

Credits: 1 Grading Method: Sat-Fail

Invited and in-house research presentations from guest scientists, faculty members, and students, and critical analysis of journal articles on current topics in environmental and occupational health.

0101	Donald Milton Tu 11:00am - 11:50am	Seats (Total: 10) SPH 2234CC

MIEH691 **UMD Global STEWARDS: Project-Based Data Practicum at the Nexus of Food, Energy, and Water Systems**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MIEH690,. Restriction: Permission of instructor; and must be in UMD Global STEWARDS Fellows.

The range of food-energy-water (FEW) systems challenges from local to global scales. During the semester, students will gain real-world experience by participating in the conceptualization and/or conduct of an interdisciplinary FEW systems project. Projects may employ engineering, life sciences, epidemiological or policy approaches; earth system sciences frameworks; computational methods; and/or other innovative approaches. Through this work, students will gain hands-on experience in study design, research methods, and data analysis across varying FEW disciplines. Each student will bring a diverse set of expertise to the projects, creating a microcosm for interdisciplinary team science. During the course, students will have the opportunity to refine oral and written communication skills, including team writing. The deliverable for the course may include a grant proposal, a manuscript, a FactSheet, an Op-Ed, or another actionable type of science/policy writing.

0201	Rianna Murray	Seats (Total: 16)
	W 1:00pm - 3:45pm	CCC 1111

MIEH699 **UMD Global STEWARDS: Seminal Findings, and Research and Policy in Progress at the Food, Energy, Water Nexus**

Credits: 1

Grading Method: Regular, Audit

Engaging discourse covering seminal findings, as well as research and policy in progress at the food, energy, water (FEW) nexus. Course meetings will include dissections of groundbreaking FEW nexus articles; presentations by faculty members and students, followed by interdisciplinary discussions; and presentations by visiting leaders working at the FEW nexus across career sectors.

0201	Amy Sapkota	Seats (Total: 15)
	Th 12:00pm - 1:00pm	SPH 2234CC

MIEH735 **Food Toxicology**

Credits: 3

Grading Method: Regular, Audit

Recommended: BCHM462, BSCI440, or CHEM131. Cross-listed with NFSC735. Credit only granted for: MIEH735 or NFSC735.

An introduction to basic concepts in toxicology in relation to toxic food contaminants and additives; both synthetic and naturally occurring. Focus on exposure routes, molecular targets and susceptible individuals. Also includes regulatory toxicology with respect food toxins.

0101	Robert Buchanan, Paul Turner	Seats (Total: 20)
	W 1:00pm - 3:45pm	SPH 0302

MIEH740 **Environmental Health Risk Assessment**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MIEH600; or permission of instructor.

Review of the major methods of human and ecological risk assessment conducted by the U.S. Environment Protection Agency. Emphasis on sources of uncertainty.

0201	Abdel-Razak Kadry	Seats (Total: 15)
	Tu 4:00pm - 6:45pm	SPH 0301

MIEH770 **Law and Policy in Environmental Health**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MIEH600; or permission of instructor.

Overview of laws that affect the environment, and the various ways in which businesses are regulated by the government in the interest of protecting the environment. International, Federal, state, and local laws and regulations related to the protection of human health and the regulation of environmental containments, including biological, physical and chemical factors affecting community health. Examination of the interactions between and differing responsibilities of various agencies enforcing environmental laws and regulations.

0101	Devon Payne-Sturges	Seats (Total: 10)
	Th 1:30pm - 4:15pm	ONLINE

MIEH778 **Internship in Public Health**

(Perm req)

Credits: 1-4

Grading Method: Regular, Audit

Practice experience and seminar providing an opportunity to apply previously acquired knowledge and skills in a health or allied health organization. Setting of the practice experience will depend upon the student's background and career goals.

0201	Paul Turner	Seats (Total: 5)
	Contact instructor or department for details.	

MIEH780 **Occupational Health**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MIEH720 and MIEH771; and must have completed SPHL602. Or permission of instructor.

A synthesis of epidemiology, toxicology, exposure science, risk assessment, and policy. Emphasis will be on methods for anticipating, recognizing, evaluating and controlling workplace hazards; the hierarchy of controls; and current hot topics in occupational health.

0101	Lesliam Quiros Alcala M 4:00pm - 6:00pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE

MIEH786 **Capstone Project in Public Health**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Permission of SPHL-Maryland Institute for Applied Environmental Health.

Capstone experience provding opportunity to apply knowledge and skills to a specific public health problem or issue. Completion of project relevant to public health under the direction of an advisor.

0201	Paul Turner Contact instructor or department for details.	Seats (Total: 5)
0202	Amir Sapkota Contact instructor or department for details.	Seats (Total: 5)
0203	Amy Sapkota Contact instructor or department for details.	Seats (Total: 5)
0204	Donald Milton Contact instructor or department for details.	Seats (Total: 5)
0205	Robin Puett Contact instructor or department for details.	Seats (Total: 5)
0206	Sacoby Wilson Contact instructor or department for details.	Seats (Total: 5)
0207	Rachel Goldstein Contact instructor or department for details.	Seats (Total: 5)
0208	Devon Payne-Sturges Contact instructor or department for details.	Seats (Total: 5)

MIEH788 **Critical Readings in Environmental Health**

Credits: 1-3 Grading Method: Regular, Audit

In-depth examination and critical discussion of the current literature relevant to environmental health.

Contact department for information to register for this course.

MIEH789 **Independent Study**

(Perm req) Credits: 1-6 Grading Method: Regular, Audit

Individual reading and/or research under a specific faculty member in the department.

Contact department for information to register for this course.

MIEH799 **Master's Thesis Research**

(Perm req) Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MIEH898 **Pre-Candidacy Research**

(Perm req) Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MIEH899 **Doctoral Dissertation Research**

(Perm req) Credits: 1-8 Grading Method: Sat-Fail

Contact department for information to register for this course.

MITH Maryland Institute for Technology in the Humanities Fall 2022

MITH301 **Digital Publishing with Minimal Computing: Humanities at a Global Scale**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: MITH301, ENGL378M, CMLT398M, or LACS348C. Additional information: Knowledge of the Spanish language is not required as teaching and collaboration will be conducted in English. In the spirit of fostering a multilingual approach, however, we will not discourage the use of Spanish among students and instructors; mutual respect and cooperation are paramount to the success of your course project.

In this Global Classrooms course, students of the University of Maryland and Universidad del Salvador, Buenos Aires, will come together to learn how to create and assess websites from a critical and humanities-focused perspective. Specifically, the course will introduce "minimal computing" approaches, which privilege the use of open technologies, ownership of data and code, reduction in computing infrastructure and, consequently, environmental impact. The course is structured around a group project with students from both universities. You will collaborate virtually to create a multilingual (Spanish and English) digital edition of a colonial era text, while learning about Digital Humanities approaches to literary studies, digital publishing, history, and postcolonial studies.

Cross-listed with MITH628C. Credit only granted for MITH301 or MITH628C.

0101	Raffaele Viglianti	Seats (Total: 5)
	W 12:00pm - 2:50pm	HBK 03101
	Class time/details on ELMs	ONLINE

MITH388T **Digital Humanities Research Assistantship; Maryland Institute for Technology in the Humanities Internships**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

An applied introduction to the theory and practice of digital research. The internship includes regular meetings with MITH staff, including designers, developers, information professionals, project managers, and faculty, to gain knowledge of existing digital scholarship and resources within the arts and humanities. Students may contribute to existing MITH projects or propose a small, independent research project on which they will receive support from MITH staff.

0101	Purdom Lindblad	Seats (Total: 5)
	Contact instructor or department for details.	

MITH628C **Special Topics in Digital Humanities; Digital Publishing with Minimal Computing: Humanities at a Global Scale**

Credits: 3

Grading Method: Regular, Audit

A graduate level introduction to special topics, and technical approaches, for theoretically grounded humanities and social sciences digital research. Class meetings will introduce students to a variety of technical approaches potentially applicable to the specific topical foci; the theoretical basis for selecting, evaluating, and modifying technical approaches; and best practices in project management.

Cross-listed with LACS648M. Credit only granted for MITH301, MITH628C, or LACS648M. In this Global Classrooms course, students of the University of Maryland and Universidad del Salvador, Buenos Aires, will come together to learn how to create and assess websites from a critical and humanities-focused perspective. Specifically, the course will introduce "minimal computing" approaches, which privilege the use of open technologies, ownership of data and code, reduction in computing infrastructure and, consequently, environmental impact. The course is structured around a group project with students from both universities. You will collaborate virtually to create a multilingual (Spanish and English) digital edition of a colonial era text, while learning about Digital Humanities approaches to literary studies, digital publishing, history, and postcolonial studies.

0101	Raffaele Viglianti	Seats (Total: 10)
	W 12:00pm - 2:50pm Class time/details on ELMs	HBK 03101 ONLINE

MITH729 **Colloquium in Digital Studies**

Credits: 1

Grading Method: Sat-Fail

Colloquium in support of the ARHU-MITH Graduate Certificate in Digital Studies. We will meet periodically (approximately 4-5 times a semester) to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another.

Cross-listed with COMM698M. Credit only granted for MITH729 or COMM698M.

0101	Catherine Steele	Seats (Total: 25)
	F 3:00pm - 5:00pm	SKN 3115

MLAW MPower Undergraduate Law Programs Fall 2022

MLAW100 **Justice and the Law**

Credits: 3 Grading Method: Regular General Education: DSHS

Restriction: Course enrollment is restricted to students in the College Park Scholars Justice and Legal Thought Program (CPJT).

An exploration into the relationship between justice and law, including psychological, philosophical, political and legal approaches to justice, as well as an analytical framework for understanding human rights.

0101	Robert Koulish TuTh 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 28) CCC 1100 EDU 1315	Discussion
0102	Robert Koulish TuTh 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 28) CCC 1100 EDU 1121	Discussion
0103	Robert Koulish TuTh 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 27) CCC 1100 JMZ 0125	Discussion

MLAW101 **Justice and the Law Service-Learning Lab**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: MLAW100. Restriction: Students must be enrolled in the College Park Scholars Justice & Legal Thought (CPJT) program or Law and Society minor. Cross-listed with: CPJT105. Credit only granted for: MLAW101 or CCJT105.

The MLAW/Justice and the Law Service-Learning Lab is designed to build skills in using law to create change through community service. Students will engage in 40 hours of service during the semester, and will engage in critical reflection sessions in person or virtually. All service is intended to advance the cause of justice using law and hence put JLT principles to practice. Service will include but not be limited to immigrant assistance and refugee resettlement.

0101	Robert Koulish, Harpreet Kaur Class time/details on ELMs	Seats (Total: 25) ONLINE	

MLAW304 **Introduction to Law and Social Inquiry**

Credits: 3 Grading Method: Regular General Education: DSSP

Restriction: Must be in the Law and Society (MLAW) minor.

An exploration of the relationship between law and society from an interdisciplinary perspective. Major themes cover the impact of law on society, society on law and social change.

0101	Christine White TuTh 11:00am - 12:15pm	Seats (Total: 35) AJC 2134
0201	Christine White MW 11:00am - 12:15pm	Seats (Total: 35) SYM 0215

MLAW305 Law and Legal Institutions in Social Context

Credits: 3 Grading Method: Regular

Prerequisite: MLAW304. Restriction: Must be a student in the Law and Society Minor.

An exploration of case law, statutes, and regulations separately and together in their social context.

0101	Brian Gilmore TuTh 9:30am - 10:45am	Seats (Total: 35) LEF 2166

MLAW315 Citizenship and Naturalization in America

Credits: 2 Grading Method: Regular

Notions of who is an American - and who is not - are deeply rooted in the American ethos. Although the United States has long been praised for its inclusiveness vis-a-vis citizenship - including a policy of jus soli, or birthright citizenship - a closer look reveals a difficult history involving the categorical exclusion of many groups from American citizenship. In this seminar, we will examine this history, focusing particularly on Black and Native Americans and immigrants, and drawing upon legal cases, historical texts, and personal narratives detailing the lived experiences of those seeking American citizenship. We will trace this history to the present and explore the current process and requirements for becoming an American citizen. In addition to the listed instructor, this course will also offer an opportunity for students to engage with a range of different actors in the citizenship and naturalization space through guest lectures and discussions from immigration clinical legal students from the Maryland Carey School of Law, academics, law professors, leading legal practitioners, and other experts.

0101	Grace Benton TuTh 11:00am - 12:00pm	Seats (Total: 18) EGR 1110

MLAW358F Selected Topics in Law and Society; First Amendment: Free Speech, Religion, and the Constitution

Credits: 3 Grading Method: Regular

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Jointly offered with GVPT439B. Credit only granted for MLAW358F or GVPT439B.

0101	Michael Spivey	Seats (Total: 20)
	MW 1:00pm - 2:15pm	TYD 1118

MLAW358T **Selected Topics in Law and Society; Tackling Trafficking: The Legal System's Responses to Human Trafficking**

Credits: 3 Grading Method: Regular

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

0101	Christine White	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 0120

MLAW358X **Selected Topics in Law and Society; Introduction to Constitutional Law**

Credits: 3 Grading Method: Regular

An interdisciplinary exploration of topics in law and society. Major scholarly interpretations of specific substantive fields of law.

Prerequisites: GVPT170 and GVPT331. Jointly offered with GVPT431. Credit only granted for GVPT431 or MLAW358X.

0101	Martin Kobren	Seats (Total: 5)
	MW 2:00pm - 3:15pm	MCB 1207

MLAW359 **Undergraduate Teaching Assistant Experience**

(Perm req)

Credits: 3 Grading Method: Regular

This course is designed to engage experienced Law and Society students as mentors and class leaders. Students will be involved in lesson planning, course design, field trips, and class discussion as they develop their leadership and public speaking skills.

0101	Brandee Pettus	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

MLAW378F **Special topics in Law and Society; Land, Shelter, and Social Justice**

Credits: 3 Grading Method: Regular

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

From the evolution of tenant rights in the 20th century to the mortgage crisis of 2008, housing and land rights and disputes have figured prominently in how societies are shaped and develop over time. This course aims to explore some aspects of the diverse and increasingly complex body of laws, policies, and attempted solutions related to housing and land in a largely unequal world and society. How has private land ownership changed societies in the modern era? What is the role of the state in addressing housing shortages and injustices related to land and housing? What does a fundamental human right to housing look like in the real world? These issues, and others, including urbanization, re-colonization, climate change, and discrimination form the core of a course that will provide students with both local, national and international perspectives on a fundamental issue for all humans living today - shelter and sustenance.

0101	Brian Gilmore	Seats (Total: 20)
	TuTh 3:30pm - 4:45pm	ARC 1125

MLAW378J **Special topics in Law and Society; Bioethics and the Law**

Credits: 3 Grading Method: Regular

An interdisciplinary examination in law and society, relying on scholarly interpretations of specific substantive topics of law

This seminar will examine the impact of advancements in the biosciences on a variety of legal and policy issues. Topics will likely include the doctrine of informed consent, physician-assisted suicide and euthanasia, assisted reproduction, conscientious refusals to provide medical care, the allocation and sale/donation of body parts and services, and medical and law enforcement uses of genetic information, as well as topics arising out of the Covid-19 pandemic. In examining these various issues, students will consider the content and consistency of current law, the policy goals motivating legal regulation, the impact of technological innovation, and directions for legal reform.

0101	Natalie Ram	Seats (Total: 20)
	MW 12:00pm - 1:15pm	TLF 1101

MLAW388 **Law and Society Internship**

Credits: 1-4 Grading Method: Regular

Participation in the Law and Society Internship (LASI) offers students the opportunity to enhance their education through practical skill building in the realm of law-related professionals.

Restricted to students within the Law and Society minor.

0101	Brandee Pettus	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

MLAW404 **Law & Society Capstone: Implications of Technology on Law & Society**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Student must be enrolled in the Law and Society minor.

An exploration of the implications of technology on law and society from a variety of perspectives.Significant issues will be taken from contemporary scholarship and court cases.

Contact department for information to register for this course.

MLAW411 **Appellate Advocacy**

Credits: 3 Grading Method: Regular

By the end of this class, and with proper supervision, students should be able to competently brief and argue an appeal before any appellate court in the country. the skills taught in this class also transfer to other contexts that demand clear legal analysis, efficient and comprehensive legal research, excellent writing and effective oral advocacy. For students interested in pre-law skills, whether they plan to go to law school or some career that requires analytical reasoning, persuasive writing, and advocacy skills.

0101	Erin Wrenn	Seats (Total: 18)
	Tu 5:30pm - 8:00pm	LEF 1171

MLSC MD Language Science Ctr Fall 2022

MLSC250 **Lol that's not funny: Language change and linguistic creativity in online communication**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Recent developments in technology, from texting to Zoom, have created new environments for human language use. Examining how communication is changing in these environments highlights humans' endless linguistic ingenuity -- ranging from new vocabulary and punctuation conventions to the use of hashtags, emoji and memes. At the same time, these linguistic innovations exemplify broader patterns of language change and diversity that have been documented and studied by language scientists. In this course, we will engage with the study of language variation and change through a survey of language use in different online environments, and will apply insights from linguistic research to analyze our own and others' language use in more nuanced ways.

FC01	Laurel Miller-Sims, Emily Lord	Seats (Total: 20)
	TuTh 3:00pm - 4:15pm	HJP 2123
	Restricted to students in Freshmen Connection	

MLSC308 **PULSAR Language Science Research Seminar**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research seminar for students in the PULSAR language science program. Weekly presentations and discussions on diverse topics in language science research, as well as on developing research skills.

0101	Andrea Zukowski	Seats (Total: 25)
	Contact instructor or department for details.	

MOCB Molecular and Cell Biology Fall 2022

MOCB608 **Molecular and Cell Biology Seminar**

(Perm req) Credits: 1 Grading Method: Regular

Seminar in molecular and cell biology.

0101	Jonathan Dinman	Seats (Total: 12)
	Contact instructor or department for details.	

MOCB699 Laboratory Rotation

(Perm req) Credits: 2-3 Grading Method: Sat-Fail

Laboratory experience in molecular-cell biology.

Contact department for information to register for this course.

MOCB898 Pre-Candidacy Research

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MOCB899 Doctoral Dissertation Research

(Perm req) Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

MSML Machine Learning Fall 2022

MSML601 Probability and Statistics

Credits: 3 Grading Method: Regular

Prerequisite: Undergraduate courses in calculus and basic linear algebra. Cross-listed with: DATA601, BIOI601. Credit only granted for: BIOI601, DATA601 or MSML601.

Provides a solid understanding of the fundamental concepts of probability theory and statistics. The course covers the basic probabilistic concepts such as probability space, random variables and vectors, expectation, covariance, correlation, probability distribution functions, etc. Important classes of discrete and continuous random variables, their inter-relation, and relevance to applications are discussed. Conditional probabilities, the Bayes formula, and properties of jointly distributed random variables are covered. Limit theorems, which investigate the behavior of a sum of a large number of random variables, are discussed. The main concepts random processes are then introduced. The latter part of the course concerns the basic problems of mathematical statistics, in particular, point and interval estimation and hypothesis testing.

PCS1	Leonid Koralov	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	
PCS2	Sandra Cerrai	Seats (Total: 50)
	W 6:00pm - 8:45pm	IRB 1207
	Must be in Graduate Programs in Science Academy.	

MSML602 Principles of Data Science

Credits: 3 Grading Method: Regular

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA602, BIOI602. Credit only granted for: BIOI602, DATA602, MSML602 or CMSC641. Formerly: CMSC641.

An introduction to the data science pipeline, i.e., the end-to-end process of going from unstructured, messy data to knowledge and actionable insights. Provides a broad overview of what data science means and systems and tools commonly used for data science, and illustrates the principles of data science through several case studies.

PCS1	Arefeh Nasri, Mohammad Hajiaghayi Tu 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy.*	Seats (Total: 50) ESJ 2208
PCS2	Arefeh Nasri, Mohammad Hajiaghayi Th 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy.*	Seats (Total: 50) IRB 2207

MSML603 Principles of Machine Learning

Credits: 3 Grading Method: Regular

Restriction: Must be in one of the following programs: (Data Science Post-Baccalaureate Certificate, Master of Professional Studies in Data Science and Analytics, or Master of Professional Studies in Machine Learning). Cross-listed with: DATA603, BIOI603. Credit only granted for: BIOI603, DATA603, MSML603 or CMSC643. Formerly: CMSC643.

A broad introduction to machine learning and statistical pattern recognition. Topics include: Supervised learning: Bayes decision theory, discriminant functions, maximum likelihood estimation, nearest neighbor rule, linear discriminant analysis, support vector machines, neural networks, deep learning networks. Unsupervised learning: clustering, dimensionality reduction, PCA, auto-encoders. The course will also discuss recent applications of machine learning, such as computer vision, data mining, autonomous navigation, and speech recognition.

PCS1	Babak Azimi-Sadjadi Th 6:00pm - 8:45pm *Must be in Graduate Programs in Science Academy.*	Seats (Total: 50) CSI 1121
PCS2	Kemal Davaslioglu F 4:00pm - 6:45pm *Must be in Graduate Programs in Science Academy.*	Seats (Total: 50) CSI 1122

MSML621 Machine Learning for Wireless Communications

Credits: 3 Grading Method: Regular

This course provides an introduction to the fundamental concepts of wireless communications and how machine learning can be applied to the domain. Example applications include signal detection, modulation classification, spectrum sensing, cellular network optimization, and cognitive radio. In addition, students will get hands-on experience using software-defined radios to explore the RF spectrum around them and detect/classify different types of signals. Topics include sampling, filtering, frequency domain/FFTs, digital modulation, cellular/IoT technologies, and how supervised, unsupervised, and reinforcement learning can be applied to these topics.

PCS1	Marc Lichtman	Seats (Total: 50)
	M 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy.	

MSML640 Computer Vision

Credits: 3 Grading Method: Regular

Prerequisite: DATA/MSML603- Principles of Machine Learning. Cross-listed with: DATA640.

An introduction to basic concepts and techniques in computer vision. Topics include low-level operations such as image filtering, correlation, edge detection and Fourier analysis. Image segmentation, texture and color analysis. Perspective, cameras and 3D reconstruction of scenes using stereo and structure from motion. Deep learning for object detection, recognition and classification in images and video.

PCS1	Kyungjin Yoo	Seats (Total: 50)
	W 6:00pm - 8:45pm	CSI 1121
	Must be in Graduate Programs in Science Academy.	

MSML650 Cloud Computing

Credits: 3 Grading Method: Regular

Cross-listed with: DATA650.

The course will present the state of the art in cloud computing technologies and applications. Topics will include: telecommunications needs, architectural models for cloud computing, cloud computing platforms and services. Data center networking, server, network and storage virtualization technologies, and containerization. Cloud operating and orchestration systems. Security, privacy, and trust management; resource allocation and quality of service; interoperability and internetworking.

PCS1	Zoltan Safar	Seats (Total: 50)
	Tu 6:00pm - 8:45pm	CSI 1122
	Must be in Graduate Programs in Science Academy.	

MUED Music Education Fall 2022

MUED155 Fundamentals for the Classroom Teacher

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in one of the following programs (Early Childhood Education; Elementary Education) ; or must be a Pre-Elementary Education major; or must be a Pre-Early Childhood Education major.

The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

0101	Darren Shillingford, Bri'Ann Wright M 4:15pm - 6:45pm	Seats (Total: 25) PAC 3160	

MUED186 **Pre-professional Experiences I**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Music Education program. Additional information: Fulfills the College of Arts and Humanities requirement for ARHU158.

An orientation into the role of the music teacher in the school and community. On-site school visits at elementary, middle and high school levels form the basis for discussion and exploration of all facets of the music education profession.

0101	Allison Durbin, Josanne Francis M 10:00am - 10:50am F 9:00am - 10:50am	Seats (Total: 30) PAC 2164 PAC 1230	 Lab

MUED213 **String Technique and Pedagogy I**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Music Education program.

A study of violin, viola, cello and bass technique and pedagogy; beginning level. Emphasizes group process playing and teaching.

0101	David Miller MWF 10:00am - 10:50am	Seats (Total: 25) PAC 2540

MUED320 **Teaching Secondary Instrumental Music I**

(Perm req)

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUED187. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to extend secondary-level musical skill through planned instruction and development of teaching materials.

0101	Stephanie Prichard	Seats (Total: 12)
	TuTh 9:30am - 10:45am	PAC 1230

MUED333 **Classroom Vocal Pedagogy**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: MUED187 and MUED186. Restriction: Must be in Music Education program.

An introduction to the fundamentals of group vocal pedagogy for the choral and general classroom teacher, including the teaching of posture, breathing, resonance, registration, articulation and foreign language diction as appropriate to needs of the child or adolescent singer in K-12 classroom settings.

0101	Kenneth Elpus	Seats (Total: 10)
	W 4:00pm - 6:30pm	PAC 2130A

MUED420 **Teaching Secondary Instrumental Music II**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail General Education: DSSP

Prerequisite: MUED320 and MUED311. Restriction: Must be in Music Education program.

Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary, curricular-oriented, research-based, comprehensive secondary instrumental program.

0101	Mike Hewitt	Seats (Total: 20)	
	Tu 9:00am - 11:00am Th 8:00am - 12:00pm	PAC 2540 Location: TBA	Lab

MUED422 **Teaching General Music II**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: MUED322 and MUED333. Restriction: Must be in Music Education program. Credit only granted for: MUED422 or MUED471. Formerly: MUED471.

Designed as an advanced music methods course and field experience for students who are preparing for a career in general music. The field experience is a practicum that is co-supervised by the university instructor and a general music educator.

0101	Robin Giebelhausen	Seats (Total: 15)	
	Tu 9:00am - 11:00am Th 8:00am - 12:00pm	PAC 2130A Location: TBA	Lab

MUED474 **Field Experiences: Pre-Student Teaching**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: MUED420 and MUED411; or (MUED472 and MUED471). Restriction: Permission of ARHU-School of Music department; and senior standing.

Field experiences to fulfill teaching requirements in K-12 music teacher education program.

0101	Justin Caithaml	Seats (Total: 15)
	Contact instructor or department for details.	

MUED484 **Student Teaching in Elementary School: Music**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Corequisite: MUED494. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

0101	Stephanie Prichard	Seats (Total: 15)
	Contact instructor or department for details.	

MUED494 **Student Teaching in Secondary School: Music**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Corequisite: MUED484. Restriction: Permission of ARHU-School of Music department; and must be in Music Education program.

Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

Students must pay a $750.00 student teaching fee.

0101	Stephanie Prichard	Seats (Total: 15)
	Contact instructor or department for details.	

MUED697 **Curriculum & Assessment in Music Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Theoretical and practical knowledge related to curriculum,assessment, and evaluation in music education. Course topics include: a) aspects of philosophy,sequencing, and design in music curricula; b) reliability, validity, and fairness in assessment; c) planning for and designing assessment of student knowledge and skills; d) policy, procedures, and outcomes associated with music teacher evaluation.

0101	Stephanie Prichard	Seats (Total: 15)
	Tu 5:00pm - 7:30pm	PAC 2130A

MUED698V **Current Trends in Music Education; Vocal Pedagogy for the Choral Conductor**

(Perm req)

Credits: 3 Grading Method: Regular

A survey of current and emerging philosophies, methodologies and curricula in music education and their implementation. The influence of educational and social changes and the expanding musical scene upon the music programs for children of all ages and for teacher education.

0101	Kenneth Elpus	Seats (Total: 5)
	W 4:00pm - 6:30pm	Location: TBA

MUED729 **Doctoral Colloquium in Music Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail, Audit

For students in PhD Progam in Music Education. Meets approximately 4-5 times per semester to read and discuss current work in the field, interact with visiting speakers, share work in progress, learn new tools and methods, and hear research presentations from one another

0101	Stephanie Prichard	Seats (Total: 10)
	Contact instructor or department for details.	

MUED785 **Teaching Music in Higher Education**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prepare students for music faculty positions in higher education institutions. The course readings, discussions, assignments, and experiences are aimed to develop the knowledge, skills, and dispositions necessary to be a successful member of the faculty at a variety of institutions.

0101	Mike Hewitt	Seats (Total: 10)
	TuTh 2:00pm - 3:15pm	PAC 2130A

MUED790 **Design and Analysis of Research in Music Education**

Credits: 3 Grading Method: Regular, Sat-Fail

Prerequisite: Must have completed a college-level statistics course. And MUED690; or an equivalent master's level research in music education course.

Advanced applications of quantitative and qualitative social science research paradigms to research problems in the field of music education. Topics include the formation of researchable questions; the design of experimental, quasi-experimental, descriptive, and qualitative research studies; and the analysis and interpretation of research data.

0101	Kenneth Elpus MW 2:00pm - 3:20pm	Seats (Total: 10) PAC 2130A

MUSC School of Music Fall 2022

MUSC001 **MUSP Course Evaluation**

(Perm req)

Credits: 0 Grading Method:

Contact department for information to register for this course.

MUSC099 **Performance Attendance**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Performance attendance laboratory for undergraduate music majors.

0101	Gilberto Cruz Contact instructor or department for details.	Seats (Total: 200)

MUSC102 **Class Piano**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

For MUSC majors only.

0101	Yuhe Wang MWF 8:00am - 8:50am	Seats (Total: 14) PAC 1123
0201	Yuhe Wang MWF 2:00pm - 2:50pm	Seats (Total: 14) PAC 1123
0301	Isabella Lee TuTh 9:30am - 10:45am	Seats (Total: 12) PAC 1123

MUSC102B **Class Piano**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Functional piano training for beginners. Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

0101	Isabella Lee	Seats (Total: 14)
	TuTh 11:00am - 12:15pm	PAC 1123

MUSC106 **Beginning Classical Guitar**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

For students with no previous musical experience.

0101	Gerard Kunkel	Seats (Total: 12)
	MW 11:00am - 11:50am	PAC 1230

MUSC123 **Movement for Singers**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department.

Systematic exercises, improvisations and dances in conjunction with artistic vocal expression. Performance and critique of stage deportment, gestures and recital techniques.

0101	Jessica Harika	Seats (Total: 15)
	Tu 6:15pm - 7:45pm	TWS 1121

MUSC127 **Vocal Diction: Italian**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within the ARHU-School of Music department.

Augmentation of private voice study. Phonetics and diction for singers of Italian vocal literature.

0101	Diba Alvi	Seats (Total: 15)
	TuTh 2:00pm - 2:50pm	PAC 3164

MUSC128 **Sight Reading For Pianists**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

0101	Johnny Shaw	Seats (Total: 5)
	MW 10:00am - 10:50am	PAC 1123

MUSC129A **Ensemble; Chamber Music - Strings**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	James Stern **Meets September 6, 2022 - December 12, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 45) PAC 2201	 Lab

MUSC129B **Ensemble; Chamber Woodwinds**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	Rita Sloan, Joseph Grimmer **Meets September 6, 2022 - December 12, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 40) PAC 2201	 Lab

MUSC129C **Ensemble; Chamber Music - Brasses**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

For MUSC majors only.

0101	Justin Drew **Meets September 6, 2022 - December 12, 2022** TuTh 11:00am - 12:15pm	Seats (Total: 30) PAC 2201	 Lab

MUSC129G **Ensemble; Balinese Gamelan**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	I Suadin	Seats (Total: 20)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC129K **Ensemble; Japanese Koto**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kyoko Okamoto	Seats (Total: 7)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC129L **Ensemble; Advanced Japanese Koto**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC129P **Ensemble; Percussion**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Jauvon Gilliam	Seats (Total: 15)	
	M 5:00pm - 7:30pm	PAC 2540	Lab
	W 5:15pm - 7:15pm	PAC 2540	Lab
FC01	Jauvon Gilliam	Seats (Total: 5)	
	M 5:00pm - 7:30pm	PAC 2540	Lab
	W 5:15pm - 7:15pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC129Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Sebastian Wang Th 7:00pm - 8:30pm	Seats (Total: 8) PAC 2170	

MUSC129U **Ensemble; Tuba & Euphonium**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Craig Potter W 6:00pm - 6:50pm	Seats (Total: 20) Location: TBA	Lab

MUSC140 **Music Fundamentals I**

Credits: 3 | Grading Method: Regular, Audit | CORE: HA | General Education: DSSP

Restriction: Must not be in any of the following programs (Music (Professional Program); Music Education).

Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

0101	Sean Klink MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 18) PAC 2168 PAC 1108	 Discussion
0201	Sean Klink MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 18) PAC 2168 PAC 1108	 Discussion
FC01	Richard Drehoff Tu 3:00pm - 4:15pm Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 13) PAC 3160 PAC 1108	 Lab

MUSC150 **Theory of Music I**

(Perm req)

Credits: 3 | Grading Method: Regular, Audit

Prerequisite: Departmental audition and entrance examination. Restriction: Must be in one of the following programs (Music (Liberal Arts Program); Music (Jazz Performance Option); Music (Winds & Percussions Performance Option); Music (Voice Performance Option); Music Composition; Music (Professional Program); Music (Piano Performance Option); Music Performance-Winds and Percussion; Music Theory and Composition; Music Performance-Piano; Music Performance-Jazz Studies; Music Performance-Voice; Music Performance-Strings; Music (Strings Performance Option)).

A study of basic concepts and skills in tonal melody and harmony through analysis and composition.

0101	Richard Layton MWF 8:00am - 8:50am TuTh 8:25am - 9:15am	Seats (Total: 8) PAC 2160 PAC 3168	 Lab
0102	Richard Layton MWF 8:00am - 8:50am TuTh 9:30am - 10:20am	Seats (Total: 8) PAC 2160 PAC 3168	 Lab
0201	Richard Layton MWF 9:00am - 9:50am TuTh 8:25am - 9:15am	Seats (Total: 8) PAC 2160 PAC 2164	 Lab
0202	Richard Layton MWF 9:00am - 9:50am TuTh 9:30am - 10:20am	Seats (Total: 8) PAC 2160 PAC 2164	 Lab
0301	Johannes Visser MWF 10:00am - 10:50am TuTh 8:25am - 9:15am	Seats (Total: 8) PAC 2160 PAC 2168	 Lab
0302	Johannes Visser MWF 10:00am - 10:50am TuTh 9:30am - 10:20am	Seats (Total: 8) PAC 2160 PAC 2168	 Lab

MUSC202 **Intermediate Class Piano I**

(Perm req)

Credits: 2 Grading Method: Regular

Prerequisite: MUSC103; or must have equivalent piano training.

Advanced keyboard techniques. Continuation of skills introduced in MUSC103. Transposition, modulation and sight reading; methods of teaching functional piano.

Only for voice and instrumental principals with limited piano experience.

0101	Johnny Shaw MWF 9:00am - 9:50am	Seats (Total: 15) PAC 1123	

MUSC204 **Popular Music in Black America**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Traces black popular music in the U.S. with a special focus on spirituals, ragtime, the blues, early jazz, R&B, Motown, funk, soul, and rap. Examines how these styles have been borrowed by the American music industry.

0101	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) ARC 0204 PAC 3168	Discussion
0102	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) ARC 0204 PAC 3168	Discussion
0103	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) ARC 0204 PAC 3168	Discussion
0104	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) ARC 0204 PAC 3160	Discussion
0105	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) ARC 0204 PAC 3160	Discussion
0106	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) ARC 0204 PAC 3160	Discussion
0107	Matthew Valnes MW 12:00pm - 12:50pm F 9:00am - 9:50am	Seats (Total: 15) ARC 0204 PAC 1815	Discussion
0108	Matthew Valnes MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 15) ARC 0204 PAC 1815	Discussion

0109	Matthew Valnes MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 15) ARC 0204 PAC 1815	Discussion

MUSC205 **History of Popular Music, 1950-Present**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU, DVUP

A historical survey of rock music (blues, rock, soul, metal, rap, etc.) from circa 1950 to the present, with emphasis on popular music as music and popular music as social history.

0101	Jessica Grimmer MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) SKN 0200 PAC 2164	Discussion
0102	Jessica Grimmer MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) SKN 0200 PAC 2164	Discussion
0103	Jessica Grimmer MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) SKN 0200 PAC 2164	Discussion
0104	Jessica Grimmer MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) SKN 0200 PAC 2168	Discussion
0105	Jessica Grimmer MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) SKN 0200 PAC 2168	Discussion
0106	Jessica Grimmer MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) SKN 0200 PAC 2168	Discussion
0107	Jessica Grimmer MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) SKN 0200 PAC 2200	Discussion
0108	Jessica Grimmer MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 17) SKN 0200 PAC 2200	Discussion

0109	Jessica Grimmer MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 17) SKN 0200 PAC 2200	Discussion
0110	Jessica Grimmer MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 17) SKN 0200 PAC 3164	Discussion
0111	Jessica Grimmer MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 17) SKN 0200 PAC 3164	Discussion
0112	Jessica Grimmer MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 17) SKN 0200 PAC 3164	Discussion
FC01	Lars Helgert MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 28) HBK 0109	

MUSC210 **The Impact of Music on Life**

Credits: 3 Grading Method: Regular CORE: HA, D General Education: DSHU, DVUP

Credit only granted for: MUET210 or MUSC210. Formerly: MUET210.

Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.

0101	Nicole Powlison MW 1:00pm - 1:50pm F 10:00am - 10:50am	Seats (Total: 16) ARC 0204 PAC 1809	Discussion
0102	Nicole Powlison MW 1:00pm - 1:50pm F 11:00am - 11:50am	Seats (Total: 16) ARC 0204 PAC 1809	Discussion
0103	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 1809	Discussion

0104	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 1809	Discussion
0105	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 1809	Discussion
0106	Nicole Powlison MW 1:00pm - 1:50pm F 3:00pm - 3:50pm	Seats (Total: 16) ARC 0204 PAC 1809	Discussion
0107	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0108	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0109	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 2168	Discussion
0110	Nicole Powlison MW 1:00pm - 1:50pm F 12:00pm - 12:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0111	Nicole Powlison MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion
0112	Nicole Powlison MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 16) ARC 0204 PAC 3168	Discussion

MUSC215 **World Popular Musics and Identity**

Credits: 3	Grading Method: Regular, Audit	CORE: HA, D	General Education: DSHU, DVUP

Credit only granted for: MUET200 or MUSC215. Formerly: MUET200.

Focus on popular musics in different cultures with an emphasis on cross-cultural comparisons and analysis of how musics and identity intersect.

0101	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0102	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0103	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 PAC 1815	Discussion
0104	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 ARC 1123	Discussion
0105	Laura Schnitker MW 12:00pm - 12:50pm F 2:00pm - 2:50pm	Seats (Total: 16) MMH 1400 PLS 1172	Discussion
0106	Laura Schnitker MW 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 16) MMH 1400 PLS 1172	Discussion
0107	Laura Schnitker MW 12:00pm - 12:50pm F 11:00am - 11:50am	Seats (Total: 16) MMH 1400 ARC 1123	Discussion
0108	Laura Schnitker MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 16) MMH 1400 ARC 1123	Discussion
0109	Laura Schnitker MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 16) MMH 1400 PLS 1172	Discussion

MUSC227 **Vocal Diction: German**

(Perm req) Credits: 1 Grading Method: Regular

Prerequisite: Permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Augmentation of private study. Phonetics and diction for singers of German vocal literature.

0101	Diba Alvi TuTh 11:00am - 11:50am	Seats (Total: 15) PAC 3164	

MUSC228 **Introduction to Accompanying for Pianists**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

A course to introduce the piano major to accompanying at an intermediate level of difficulty. Class instruction will center on rehearsal and coaching geared toward performance, and will be supplemented by experience working as an accompanist in voice classes or applied studios.

0101	Mai-Linh Pham Tu 4:00pm - 6:00pm	Seats (Total: 10) PAC 2126	

MUSC229A **Ensemble; Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely TuTh 3:30pm - 6:30pm	Seats (Total: 70) PAC 1230	Lab
FC01	David Neely TuTh 3:30pm - 6:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 1230	Lab

MUSC229D **Ensemble; Wind Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 75)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC229E **Ensemble; Wind Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Andrea Brown	Seats (Total: 75)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab
FC01	Andrea Brown	Seats (Total: 5)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229F **Ensemble; Marching Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition.

0101	Andrea Brown	Seats (Total: 300)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab
FC01	Craig Potter	Seats (Total: 10)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229G **Ensemble; Marching Band: Woodwinds and Brass**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Corequisite: MUSC 229F.

0101	Andrea Brown	Seats (Total: 300)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab
FC01	Craig Potter	Seats (Total: 10)	
	Tu 6:30pm - 8:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229I **Ensemble; Marching Band: Drumline and Auxiliary**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Corequisite: MUSC 229F.

0101	Craig Potter, Andrea Brown	Seats (Total: 75)	
	TuTh 6:30pm - 8:30pm	PAC 2540	Lab
FC01	Craig Potter	Seats (Total: 10)	
	TuTh 6:30pm - 8:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Tim Powell	Seats (Total: 25)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 30)	
	MW 1:00pm - 2:20pm	PAC 1230	Lab
0301	Tim Powell	Seats (Total: 30)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

FC01	Tim Powell	Seats (Total: 3)	
	M 7:30pm - 9:30pm	PAC 1230	Lab
	Restricted to students in Freshmen Connection.		

MUSC229K **Ensemble; Marching Band Dance Team**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Ann Kennedy	Seats (Total: 30)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
FC01	Ann Kennedy	Seats (Total: 10)	
	Su 7:00pm - 9:30pm	Location: TBA	Lab
	TuTh 6:30pm - 9:00pm	Location: TBA	Lab
	Restricted to students in Freshmen Connection.		

MUSC229P **Ensemble; Pep Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Andrea Brown	Seats (Total: 60)	
	TBA	PAC 2540	Lab
FC01	Andrea Brown	Seats (Total: 60)	
	M 7:30pm - 9:30pm	PAC 2540	Lab
	Restricted to students in Freshmen Connection.		

MUSC229R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Shun Yao MW 3:00pm - 5:00pm	Seats (Total: 50) PAC 1230	 Lab
FC01	Shun Yao MW 3:00pm - 5:00pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 1230	 Lab

MUSC229U **Ensemble; University Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Open by audition, contact instructor to make arrangements.

0101	Craig Potter W 7:30pm - 9:30pm	Seats (Total: 100) PAC 2540	 Lab
FC01	Craig Potter W 7:30pm - 9:30pm *Restricted to students in Freshmen Connection.*	Seats (Total: 10) PAC 2540	 Lab

MUSC229Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 10)	
0201	Thomas Baldwin Tu 5:00pm - 6:30pm	Seats (Total: 10) Location: TBA	 Lab
0301	Corey Hewitt Contact instructor or department for details.	Seats (Total: 10)	
0401	Hart Guonjian-Pettit Contact instructor or department for details.	Seats (Total: 10)	

MUSC240 **Elements of Music Composition for Non-Majors**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC 140, or by permission of instructor. Recommended: Ability to read music on a grand staff (treble and bass clef). Restriction: Must not be in any of the following programs: (Music (Professional Program); Music Education). Credit only granted for: MUSC240 or HONR218M. Formerly: HONR218M.

Emphasizes learning concepts and techniques of music composition through the study of music theory and structure used in both classical and popular music forms. Students will compose music using computer assisted and composition tools. These tools include cloud based digital audio workstations and music notation programs. Compositions will be written in these musical styles but not limited to classical, jazz, and popular. Students will also explore methods of sharing their compositions on various digital platforms.

0101	William Evans Tu 2:00pm - 4:30pm	Seats (Total: 18) PAC 1108	

MUSC250 **Advanced Theory of Music I**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in MUSC151.

A continuation of MUSC 151, with further study of chromatic and modulatory techniques of the nineteenth century. Emphasis on sight singing, ear training, analysis and compositional skills.

0101	Jared Kenlon TuTh 8:00am - 9:15am MW 8:00am - 8:50am	Seats (Total: 6) PAC 3160 PAC 2164	 Lab
0102	Jared Kenlon TuTh 8:00am - 9:15am MW 9:00am - 9:50am	Seats (Total: 6) PAC 3160 PAC 2164	 Lab
0201	Dora Hanninen TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) PAC 2160 PAC 3164	 Lab
0202	Dora Hanninen TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 6) PAC 2160 PAC 3164	 Lab

0301	Mark Wilson TuTh 9:30am - 10:45am MW 9:00am - 9:50am	Seats (Total: 6) ONLINE PAC 3168	 Lab
0302	Mark Wilson TuTh 9:30am - 10:45am MW 10:00am - 10:50am	Seats (Total: 6) ONLINE PAC 3168	 Lab

MUSC260 **Music as Global Culture**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: MUSC151. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC220 or MUSC260.

Explores how and why people create, transform, and move music around the globe. Taking a comparative approach to Western art musics and other musics of the world, course will examine a variety of musical practices in their social, political, and economic contexts. Experiential knowledge will be developed through hands-on ethnographic research.

0101	Siv Lie MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0102	Siv Lie MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0103	Siv Lie MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion
0104	Siv Lie MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	Seats (Total: 16) PAC 2200 PAC 2160	 Discussion

MUSC269R **Special Topics in Study Abroad II; From Elvis to Rap: 50 Years of History As Seen Through Rock Music**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC329A **Ensemble; University of Maryland Chorale**

(Perm req) Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements. Monthly evening rehearsals will be scheduled as announced.

0101	Mark Helms	Seats (Total: 75)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab
FC01	Mark Helms	Seats (Total: 10)	
	TuTh 4:30pm - 6:00pm	PAC 2201	Lab
	Restricted to students in Freshmen Connection.		

MUSC329B Ensemble; Chamber Singers

(Perm req) Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Audition required before permission of department will be granted, contact instructor to make arrangements. Monthly evening rehearsals will be scheduled as announced.

0101	Jason Ferdinand	Seats (Total: 50)	
	MW 3:00pm - 3:50pm	PAC 2201	Lab
	TuTh 3:30pm - 4:20pm	PAC 2201	Lab

MUSC329E Ensemble; Gospel Choir

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Anne Carswell	Seats (Total: 60)	
	Th 7:00pm - 10:00pm	PAC 2201	Lab

MUSC329M Ensemble; Ensemble: Tactus (Tenor & Bass Choir)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Monthly evening rehearsals will be scheduled as announced.

0101	Nathan Lofton	Seats (Total: 40)	
	MWF 12:00pm - 12:50pm	PAC 1230	Lab
	Sharing with Craig Arnold's approval even though there are two different instructors.		
FC01	Nathan Lofton	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 1230	Lab
	Restricted to students in Freshmen Connection.		

MUSC329O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

0101	Mark Helms	Seats (Total: 30)	
	F 3:30pm - 5:30pm	PAC 2170	Lab

MUSC329W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

Monthly evening rehearsals will be scheduled as announced.

0101	Kenneth Elpus	Seats (Total: 60)	
	MWF 12:00pm - 12:50pm	PAC 2201	Lab
FC01	Kenneth Elpus	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 2201	Lab
	Restricted to students in Freshmen Connection.		

MUSC361 **Music in Western Culture After 1900**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC360. Restriction: Must be in a major within the ARHU-School of Music department. Credit only granted for: MUSC330 or MUSC361.

Continuation of MUSC360. A historical study of Western classical music, popular music, and jazz since 1900.

0101	Matthew Valnes	Seats (Total: 16)		
	MW 2:00pm - 2:50pm F 12:00pm - 12:50pm	PAC 2201 PAC 3160	Discussion	
0102	Matthew Valnes	Seats (Total: 16)		
	MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	PAC 2201 PAC 3160	Discussion	
0103	Matthew Valnes	Seats (Total: 16)		
	MW 2:00pm - 2:50pm F 2:00pm - 2:50pm	PAC 2201 PAC 3160	Discussion	
0104	Matthew Valnes	Seats (Total: 16)		
	MW 2:00pm - 2:50pm F 3:00pm - 3:50pm	PAC 2201 PAC 3160	Discussion	

MUSC369M **Special Topics in Study Abroad III; Masterpieces of Italian Opera**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

MUSC379 **Opera Workshop**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Open to music and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

0101	Mai-Linh Pham, Corinne Hayes	Seats (Total: 15)	
	MW 4:00pm - 6:00pm	PAC 2170	Lab

MUSC386 **Experiential Learning**

(Perm req)

Credits: 6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Music department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

MUSC388 **Music Internship**

(Perm req)

Credits: 3 Grading Method: Regular

Pre-professional field work in music.

Contact department for information to register for this course.

MUSC389 **Music Internship Analysis**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Documentation and evaluation of field work experience.

Contact department for information to register for this course.

MUSC400S **Music Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP315; and permission of ARHU-School of Music department.

Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

0101	Irina Muresanu M 5:00pm - 7:30pm	Seats (Total: 20) PAC 2200
0701	Sarah Fuller Contact instructor or department for details.	Seats (Total: 5)

MUSC428 **Repertoire Coaching of Vocal or Chamber Music**

(Perm req)

Credits: 2 Grading Method: Regular

A course for piano students who wish to go further than the work offered in MUSC128, MUSC228 and MUSC328 by becoming specialists in the areas of vocal coaching or chamber music coaching. Elements of pedagogy, conducting and responsible artistic decision-making for the entire musical production.

0101	Rita Sloan, Irina Muresanu Contact instructor or department for details.	Seats (Total: 5)

MUSC438L **Area Studies in Ethnomusicology; Music of Latino/a Communities in the US**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Advanced study of musics in selected parts of the world.

0101	Fernando Rios MW 9:00am - 10:15am	Seats (Total: 20) PAC 2168

MUSC443 **Solo Vocal Literature**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC330 and MUSC331; or students who have taken courses with comparable content may contact the department.

The study of solo vocal literature from the Baroque Cantata to the Art Song of the present. The Lied, Melodie, vocal chamber music and the orchestral song are examined.

0101	Diba Alvi TuTh 9:30am - 10:45am	Seats (Total: 10) PAC 2201

MUSC444 **Wind and Percussion Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department. Corequisite: MUSP420 or MUSP419.

Recital program notes and written projects in wind or percussion literature.

Contact department for information to register for this course.

MUSC446 **String Literature**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSP316; and permission of ARHU-School of Music department.

Recital program notes and written projects in string literature.

Contact department for information to register for this course.

MUSC448 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Contact department for information to register for this course.

MUSC448E **Financial Entrepreneurship for Arts Leaders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: ARHU340. Credit only granted for: ARHU340 or MUSC448E.

An introduction to financial entrepreneurship for the arts leader in order to prepare students for diverse and ever-changing careers in the arts and creative fields. Topics explored will include Professional Paperwork (resumes, cover letters, biographies, job searches), Financial Literacy (taxes, budgets, boards, tickets sales, musicians unions), Marketing (website development, social media, press packets, record labels vs. online distribution, headshots, audience development, community engagement, branded content), Communication (public speaking, writing), and Technology (online tools, computer software, peripherals, recording, photography/videography, on campus resources).

0101	Richard Scerbo TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1809
0102	Richard Scerbo TuTh 9:30am - 10:45am	Seats (Total: 14) PAC 1809

MUSC448O **Selected Topics in Music; Music Composition**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MUSC450 or equivalent and permission of instructor. Restriction: Registration restricted to music majors who are not majoring in music composition. A course for music majors who wish to develop skills in music composition. Student works will be discussed in class and models of compositional techniques will be studied in literature from diverse styles and style periods.

0101	Robert Gibson	Seats (Total: 8)
	TuTh 9:30am - 10:45am	PAC 3160

MUSC448T **Selected Topics in Music; Critical Concepts in Music Theory**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Cross-listed with MUSC699T. Credit only granted for MUSC448T or MUSC699T. Prerequisite: Permission of instructor.

0101	Dora Hanninen	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 2160

MUSC448W **Selected Topics in Music; Instrumental Pedagogy**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC448Z **Selected Topics in Music; Music in the Baroque Era**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

0101	Barbara Haggh-Huglo	Seats (Total: 20)
	MW 11:00am - 12:15pm	PAC 3164

MUSC450 **Musical Form**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251.

A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

0101	Daniel Zimmerman	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	PAC 2164

MUSC453 **Jazz Improvisation I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251; or students who have taken courses with comparable content may contact the department. And permission of ARHU-School of Music department. Credit only granted for: MUSC345 or MUSC453. Formerly: MUSC345.

Jazz theory, notational conventions, improvisation techniques, reading and analysis of music, and performance in small combo format.

0101	Tim Powell M 7:30pm - 9:30pm Contact instructor or department for details.	Seats (Total: 8) PAC 1208

MUSC455 **Theory of Jazz**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC250; or permission of ARHU-School of Music department. Restriction: Must be in a major within ARHU-School of Music department.

Analysis of jazz harmony, with emphasis on principles of substitution, reharmonization, and syntax. Topics may also include chord/scale relationships, phrasing and articulation, notation, and introductory arranging concepts such as orchestration and form.

0101	Leigh Pilzer MW 4:00pm - 5:15pm	Seats (Total: 12) PAC 3168

MUSC464 **The Theories of Heinrich Schenker**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC251 and MUSC450; and permission of ARHU-School of Music department. Restriction: Must not have completed MUSC651. Credit only granted for: MUSC464 or MUSC651.

An advanced analysis course in tonal music with specific emphasis on the theories of the early 20th century theorist Heinrich Schenker. Specific analyses of music by Bach, Mozart, Haydn, Beethoven, Chopin, and Brahms.

0101	Thomas DeLio W 2:00pm - 4:30pm	Seats (Total: 10) PAC 2164

MUSC467 **Piano Pedagogy I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Permission of ARHU-School of Music department.

A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

0101	Mayron Tsong	Seats (Total: 15)
	MW 11:00am - 12:15pm	PAC 2164

MUSC469C **Orchestral Excerpts for String Players; Violin**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Restriction: Permission of department.

0101	David Salness	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC469D **Orchestral Excerpts for String Players; Viola**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

Restriction: permission of department.

0101	Katherine Murdock	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC469E **Orchestral Excerpts for String Players; Orchestral Excerpts for String Players: Cello**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Eric Kutz	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC469F **Orchestral Excerpts for String Players; Bass**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 15)
	W 4:30pm - 5:45pm	Location: TBA

MUSC469V **Orchestral Excerpts for String Players; Harp**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller Contact instructor or department for details.	Seats (Total: 10)

MUSC471 **Contemporary Compositional Techniques**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MUSC470; or permission of ARHU-School of Music department.

Continuation of MUSC470, with emphasis on the analysis of individual works written since 1945.

0101	Thomas DeLio W 5:30pm - 8:00pm	Seats (Total: 15) PAC 2164

MUSC490 **Conducting**

(Perm req)

Credits: 2

Grading Method: Regular

Prerequisite: MUSC251.

Vocal and instrumental baton techniques.

0101	Andrea Brown MWF 9:00am - 9:50am	Seats (Total: 12) PAC 2540
0201	Jason Ferdinand, David Mann, Nathan Lofton MWF 1:00pm - 1:50pm	Seats (Total: 13) PAC 2201

MUSC499 **Independent Studies**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.

Contact department for information to register for this course.

MUSC550 **Theory of Music Graduate Review**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department.

Music theory review for graduate students:aural training, counterpoint, basic diatonic harmony, chromatic harmony, and analysis of complete works.

0101	Robert Gibson	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 2160

MUSC601 **Advanced English Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic, oratorio and song literature in English: stress patterns, linkage, stressed and non stressed vowels, dipthongs, placement of consonants and vowels, and communication of text with emphasis on current performance practices. Use of the International Phonetic Alphabet (IPA) will be stressed.

0101	Jennifer Cabot	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 2170

MUSC604 **Advanced French Lyric Diction**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)) . And permission of instructor; or admission to graduate voice program.

Concepts, strategies and techniques for singing operatic and song literature in French: phoneticization, formation and singing of the vowel-sounds, semi-consonants, and consonants; the liaison; legato singing in French; the hiatus, mute and aspirate 'h'; stress and word rhythm. Use of the International Phonetic Alphabet (IPA) will be stressed.

0101	Gran Wilson	Seats (Total: 15)
	Tu 10:30am - 12:00pm	PAC 1218

MUSC605 **Opera Repertory I**

(Perm req)

Credits: 1 Grading Method: Regular

Prerequisite: MUSC602; or permission of instructor. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Advanced vocal coaching of selections from the Italian, French, German, and English opera repertory: musical accuracy; language facility; diction clarity; and dramatic interpretation.

0101	Craig Kier	Seats (Total: 10)
	W 11:30am - 1:00pm	PAC 3168

MUSC608 **Chamber Music Repertory; Chamber Music Repertoire**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Prerequisite: graduate standing as a major in performance. A study, through performance, of diversified chamber music for standard media.

Contact department for information to register for this course.

MUSC609 **Piano Chamber Music Practicum and Analysis**

(Perm req)

Credits: 2 Grading Method: Regular

Study of repertoire written for piano in duos or with several instruments, to develop an accompanists advanced performance skills in listening, balance, nuance in dynamics, harmonic motion and phrasing.

0101	Rita Sloan, Irina Muresanu	Seats (Total: 10)	
	Contact instructor or department for details.		

MUSC611 **Opera Techniques I**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Corequisite: MUSC601. Restriction: Permission of director of opera; and must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Techniques for opera performance: Improvisation; Acting I, Scene Study I; and Movement I. Practical application of styles and techniques to operatic repertoire.

0101	Steven Bailey, Craig Kier, Corinne Hayes	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC613 **Opera Techniques III**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: Minimum grade of B- in MUSC612; and permission of Director of Opera required. Corequisite: MUSC603 and MUSC605. Restriction: Must be in one of the following programs (Music - Doctoral (Doctoral); Music - Master (Master's)).

Continuation of MUSC 612. Techniques for opera performance: Scene Study III; Movement III; and Shakespeare.

0101	Craig Kier, Corinne Hayes, Steven Bailey	Seats (Total: 10)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC629A **Ensemble; Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	David Neely	Seats (Total: 50)	
	TuTh 3:30pm - 6:30pm	PAC 1230	Lab

MUSC629C **Ensemble; Wind Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown	Seats (Total: 20)	
	MWF 11:00am - 12:30pm	PAC 2540	Lab

MUSC629F **Ensemble; Marching Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Andrea Brown	Seats (Total: 175)	
	MWF 3:00pm - 5:00pm	PAC 2540	Lab

MUSC629G **Ensemble; Balinese Gamelan**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	I Suadin	Seats (Total: 5)	
	Th 7:00pm - 8:30pm	PAC 1230	Lab

MUSC629H **Ensemble; Harp**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sarah Fuller	Seats (Total: 1)	
	TuTh 11:00am - 12:15pm	Location: TBA	Lab

MUSC629J **Ensemble; Jazz Ensemble**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Tim Powell	Seats (Total: 20)	
	MW 5:30pm - 7:15pm	PAC 1230	Lab
0201	Tim Powell	Seats (Total: 10)	
	MW 1:00pm - 2:20pm	PAC 1230	Lab
0301	Tim Powell	Seats (Total: 10)	
	M 7:30pm - 9:30pm	PAC 1230	Lab

MUSC629K **Ensemble; Japanese Koto**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Kyoko Okamoto	Seats (Total: 2)	
	Tu 5:30pm - 7:00pm	PAC 3160	Lab

MUSC629L **Ensemble; Advanced Japanese Koto**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Kyoko Okamoto	Seats (Total: 4)	
	Tu 7:00pm - 8:30pm	PAC 3160	Lab

MUSC629O **Ensemble; Tuba & Euphonium**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Craig Potter	Seats (Total: 5)	
	W 6:00pm - 6:50pm	Location: TBA	Lab

MUSC629P **Ensemble; Percussion Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Jauvon Gilliam	Seats (Total: 5)	
	M 5:00pm - 7:30pm	PAC 2540	Lab
	W 5:15pm - 7:15pm	PAC 2540	Lab

0201	Instructor: TBA	Seats (Total: 5)	
	Contact instructor or department for details.		

MUSC629Q **Ensemble; Korean Percussion Ensemble**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

0101	Sebastian Wang	Seats (Total: 2)	
	Th 7:00pm - 8:30pm	PAC 2170	

MUSC629R **Ensemble; Repertoire Orchestra**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Jesse Leong	Seats (Total: 10)	
	MW 3:00pm - 5:00pm	PAC 1230	Lab

MUSC629U **Ensemble; University Band**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition, contact instructor to make arrangements.

0101	Craig Potter	Seats (Total: 10)	
	W 7:30pm - 9:30pm	PAC 2540	Lab

MUSC629W **Ensemble; Wind Orchestra**

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Open by audition, contact instructor to make arrangements.

0101	Michael Votta	Seats (Total: 30)	
	TuTh 3:30pm - 6:30pm	PAC 2540	Lab

MUSC629Z **Ensemble; Jazz Combo**

(Perm req)

Credits: 1 Grading Method: Regular

Rehearsal and performance of selected works for small and large instrumental ensembles.

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Gerard Kunkel Contact instructor or department for details.	Seats (Total: 10)	
0201	Thomas Baldwin Th 5:00pm - 6:30pm	Seats (Total: 10) Location: TBA	Lab
0301	Corey Hewitt Contact instructor or department for details.	Seats (Total: 10)	
0401	Hart Guonjian-Pettit Contact instructor or department for details.	Seats (Total: 10)	

MUSC643 **Seminar in Solo Vocal Literature I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: MUSC443; or students who have taken courses with comparable content may contact the department.

An intensive study of solo vocal literature from its origin to the present.

0101	Lori Sen, Mai-Linh Pham W 3:00pm - 5:30pm	Seats (Total: 15) PAC 2160

MUSC646 **Introduction to Musicology**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Graduate student standing in in the School of Music. Credit only granted for: MUSC648 or MUSC646.

An introduction to the basics of musicological research, including sources, methodologies, and techniques, as well as the fundamentals of both academic and non-academic writing.

0101	Olga Haldey TuTh 11:00am - 12:15pm	Seats (Total: 10) PAC 3110A

MUSC648 **Seminar in Music Research; Seminar in Music Research**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

An introduction to graduate study in the history and literature of music. Bibliography and methodology of systematic and historical musicology.

0101	Lars Helgert Tu 7:00pm - 9:30pm	Seats (Total: 15) PAC 2515C	
0201	Barbara Haggh-Huglo M 7:00pm - 9:30pm	Seats (Total: 15) PAC 2160	
0301	Jessica Grimmer TuTh 9:30am - 10:45am	Seats (Total: 15) PAC 1815	
0401	Lars Helgert Th 7:00pm - 9:30pm	Seats (Total: 15) PAC 2515C	

MUSC649A **Ensemble; University of Maryland Chorale**

(Perm req)

Credits: 1 Grading Method: Regular

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Mark Helms TuTh 4:30pm - 6:00pm	Seats (Total: 10) PAC 2201	 Lab

MUSC649B **Ensemble; Chamber Singers**

(Perm req)

Credits: 1 Grading Method: Regular

Audition required before permission of department will be granted, contact instructor to make arrangements.

0101	Jason Ferdinand MW 3:00pm - 3:50pm TuTh 3:30pm - 4:20pm	Seats (Total: 10) PAC 2201 PAC 2201	 Lab Lab

MUSC649E **Ensemble; Ensemble: Gospel Choir**

Credits: 1 Grading Method: Regular

0101	Anne Carswell Th 7:00pm - 10:00pm	Seats (Total: 10) PAC 2201	 Lab

MUSC649M **Ensemble; Ensemble: Tactus (Tenor & Bass Choir)**

Credits: 1 Grading Method: Regular

0101	Nathan Lofton MWF 12:00pm - 12:50pm	Seats (Total: 10) PAC 1230	 Lab

MUSC649O **Ensemble; Opera Chorus**

(Perm req)

Credits: 1 Grading Method: Regular

0101	Mark Helms	Seats (Total: 15)	
	F 3:30pm - 5:30pm	PAC 2170	Lab

MUSC649W **Ensemble; Treble Choir**

Credits: 1 Grading Method: Regular

0101	Kenneth Elpus	Seats (Total: 10)	
	MWF 12:00pm - 12:50pm	PAC 2201	Lab

MUSC651 **The Theories of Heinrich Schenker**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: MUSC450; or permission of ARHU-School of Music department.

The analytical methods of Heinrich Schenker with application of those theories to musical literature from the Baroque, Classical and Romantic periods.

0101	Thomas DeLio	Seats (Total: 10)
	W 2:00pm - 4:30pm	PAC 2164

MUSC653 **Jazz Improvisation I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC653 or MUSC699Z. Formerly: MUSC699Z.

Study of improvisational techniques and historical styles of jazz, including study of jazz "language" through transcription and analysis of recorded solos, and the exploration of creative processes and philosophical concepts.

0101	Tim Powell	Seats (Total: 8)
	M 7:30pm - 9:30pm	PAC 1208
	Contact instructor or department for details.	

MUSC655 **Theory of Jazz**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC655 ir MUSC699J. Formerly: MUSC699J.

Analysis of jazz harmony, with emphasis on principles of substitution, reharmonization, and syntax. Topics may also include chord/scale relationships, phrasing, articulation, notation and orchestration.

0101	Leigh Pilzer MW 4:00pm - 5:15pm	Seats (Total: 12) PAC 3168

MUSC659A **Seminar in Repertoire and Pedagogy**

(Perm req)

Credits: 2-3 Grading Method: Regular

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Jason Ferdinand Contact instructor or department for details.	Seats (Total: 6)

MUSC659B **Seminar in Repertoire and Pedagogy; Orchestral Repertoire and Pedagogy**

(Perm req)

Credits: 2-3 Grading Method: Regular

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	David Neely Contact instructor or department for details.	Seats (Total: 6)

MUSC659C **Seminar in Repertoire and Pedagogy; Wind Repertoire and Pedagogy**

(Perm req)

Credits: 2-3 Grading Method: Regular, Audit

Analysis and preparation of choral master works from all major style periods for the purpose of successful rehearsal and performance by conductors.

0101	Michael Votta Contact instructor or department for details.	Seats (Total: 5)

MUSC660 **String Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC400S or MUSC660.

A study of major string pedagogical treatises, and an evaluation of string pedagogical techniques, materials, and procedures.

0101	Irina Muresanu M 5:00pm - 7:30pm	Seats (Total: 20) PAC 2200
0701	Sarah Fuller Contact instructor or department for details.	Seats (Total: 5)

MUSC669C **Orchestral Excerpts for String Players; Violin**

Credits: 1 Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	David Salness	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669D **Orchestral Excerpts for String Players; Viola**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Katherine Murdock	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669E **Orchestral Excerpts for String Players; Orchestral Excerpts for String Players: Cello**

(Perm req)

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Eric Kutz	Seats (Total: 10)
	Contact instructor or department for details.	

MUSC669F **Orchestral Excerpts for String Players; Bass**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Richard Barber	Seats (Total: 15)
	W 4:30pm - 5:45pm	Location: TBA

MUSC669V **Orchestral Excerpts for String Players; Harp**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

In-depth study of the orchestral excerpts required for professional orchestra auditions.

0101	Sarah Fuller	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC675 **Music Theory Pedagogy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Analysis of introductory level music theory courses, evaluation of text materials, and teaching approaches for music fundamentals, aural training, and basic undergraduate theory programs.

0101	Daniel Zimmerman	Seats (Total: 7)
	TuTh 11:00am - 12:15pm	PAC 3160

MUSC677 **Introduction to Ethnomusicology**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARHU-School of Music department.

An introduction to the field of ethnomusicology: its origins as comparative musicology, its establishment as an autonomous discipline, and its contemporary trajectories.

0101	John Witzleben	Seats (Total: 12)
	TuTh 2:00pm - 3:15pm	PAC 3110A

MUSC679 **Seminar in Ethnomusicology**

(Perm req)

Credits: 3 Grading Method: Regular

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

Contact department for information to register for this course.

MUSC679N **Seminar in Ethnomusicology; Music and Nation Building**

(Perm req)

Credits: 3 Grading Method: Regular, Sat-Fail

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

0101	Fernando Rios	Seats (Total: 12)
	W 3:30pm - 6:00pm	PAC 3110A

MUSC679S **Seminar in Ethnomusicology; Music, Language, and Signs**

Credits: 3 Grading Method: Regular, Sat-Fail

Seminar topics address current issues, including gender, the social economy of music, ethnography of performance, etc.

Cross listed with ANTH689S. Credit only granted for MUSC679S or ANTH689S. How do people communicate through and about music? Why is music often considered a "universal language"? How does music mean? This graduate seminar examines the intersections of music, language, and signs more broadly, with special attention to the human voice. Students will build a foundation in linguistic and semiotic anthropology and will explore how ideas about music and communication shape practices and relationships across various cultural groups.

0101	Siv Lie Tu 3:30pm - 6:00pm	Seats (Total: 12) PAC 3110A

MUSC689 **Advanced Conducting**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

A concentrated study of the conducting techniques involved in the repertoire of all historical periods.

0101	Michael Votta M 1:00pm - 3:30pm	Seats (Total: 5) PAC 3164
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

MUSC699 **Selected Topics in Music**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC699T **Selected Topics in Music; Critical Concepts in Music Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Cross-listed with MMUSC448T Credit only granted for MUSC448T or MUSC699T. Prerequisite: Permission of instructor.

0101	Dora Hanninen TuTh 11:00am - 12:15pm	Seats (Total: 12) PAC 2160

MUSC699W **Selected Topics in Music; Instrumental Pedagogy**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

MUSC757 **Aural Skills for Conductors**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Permission of ARHU-School of Music department.

Advanced musicianship skills necessary for conductors.

0101	David Neely Tu 12:30pm - 1:30pm W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126 PAC 2126

MUSC758 **Advanced Aural Skills for Conductors**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Continuation of MUSC757, advanced aural skills necessary for conductors.

0101	David Neely W 1:00pm - 2:15pm	Seats (Total: 5) PAC 2126

MUSC799 **Master's Thesis Research**

(Perm req)

Credits: 1-6

Grading Method: Sat-Fail

Contact department for information to register for this course.

MUSC800S **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Irina Muresanu M 5:00pm - 7:30pm	Seats (Total: 20) PAC 2200
0701	Sarah Fuller Contact instructor or department for details.	Seats (Total: 5)

MUSC800W **Advanced Seminar in Music Pedagogy**

(Perm req)

Credits: 3

Grading Method: Regular

Prerequisite: MUSC400; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor.

A detailed study of historical and contemporary methods of pedagogy, and analysis of pedagogical problems. Sectioning by instrument. Required of all candidates for the D.M.A. Degree in performance and literature.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)

0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)	
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)	
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)	
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)	
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)	
0901	Willie Clark Contact instructor or department for details.	Seats (Total: 10)	
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)	
1101	Jauvon Gilliam Contact instructor or department for details.	Seats (Total: 10)	
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)	
1301	Justin Drew Contact instructor or department for details.	Seats (Total: 5)	

MUSC811 **Doctoral Opera Techniques**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Restriction: Permission of ARHU-School of Music department. Credit only granted for: MUSC611 or MUSC811.

Techniques for opera performance: Improvisation; Acting I, Scene Study I; and Movement I. Practical application of styles, techniques to operat e repertoire, and methodology seminar.

0101	Steven Bailey, Craig Kier, Corinne Hayes TBA TBA	Seats (Total: 5) PAC 2170 PAC 1218	 Lab

MUSC813 **Doctoral Opera Techniques III**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: MUSC812; and permission of ARHU-School of Music department. Credit only granted for: MUSC613 and MUSC813.

Continuation of MUSC812. Techniques for opera performance: Scene Study III; Movement III; Acting III Shakespeare; Dance I; Stage Combat II; Stage Combat II; and methodology seminar.

0101	Steven Bailey, Craig Kier, Corinne Hayes	Seats (Total: 5)	
	TBA	PAC 2170	
	TBA	PAC 1218	Lab

MUSC830A **Doctoral Seminar in Music Literature**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Lori Sen, Mai-Linh Pham	Seats (Total: 15)
	W 3:00pm - 5:30pm	PAC 2160

MUSC830P **Doctoral Seminar in Music Literature**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Mayron Tsong	Seats (Total: 15)
	F 10:00am - 12:30pm	Location: TBA

MUSC830V **Doctoral Seminar in Music Literature**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Lori Sen, Mai-Linh Pham	Seats (Total: 15)
	W 3:00pm - 5:30pm	PAC 2160

MUSC830W **Doctoral Seminar in Music Literature**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed at least twelve hours in music history and literature.

An analytical survey of the literature of music: keyboard music; vocal music; string music; wind instrument music; required of all candidates for the D.M.A. Degree in literature-performance.

0101	Sarah Frisof Contact instructor or department for details.	Seats (Total: 10)
0201	Mark Hill Contact instructor or department for details.	Seats (Total: 10)
0301	Robert DiLutis Contact instructor or department for details.	Seats (Total: 10)
0401	Erich Heckscher Contact instructor or department for details.	Seats (Total: 10)
0501	Tim Powell Contact instructor or department for details.	Seats (Total: 10)
0601	Gregory Miller Contact instructor or department for details.	Seats (Total: 10)
0701	Paul Gekker Contact instructor or department for details.	Seats (Total: 10)
0801	Matthew Guilford Contact instructor or department for details.	Seats (Total: 10)
0901	Aaron Goldman Contact instructor or department for details.	Seats (Total: 10)
1001	Paul Kellner Contact instructor or department for details.	Seats (Total: 10)
1101	Jauvon Gilliam Contact instructor or department for details.	Seats (Total: 10)
1201	Joseph Grimmer Contact instructor or department for details.	Seats (Total: 5)

1301	Justin Drew	Seats (Total: 5)
	Contact instructor or department for details.	

MUSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

MUSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

NACS Neuroscience & Cognitive Science Fall 2022

NACS608 **Neuroscience and Cognitive Science Seminar**

Credits: 1 Grading Method: Regular

Special seminar topics in Neuroscience and Cognitive Science.

0101	Ricardo Araneda	Seats (Total: 20)
	F 10:15am - 11:15am	BRB 1103

NACS640 **Foundational Readings Seminar**

(Perm req)

Credits: 2 Grading Method: Regular

Restriction: Permission of instructor; and must be in Neurosciences and Cognitive Sciences (Doctoral) program. Credit only granted for: NACS640 or NACS728R. Formerly: NACS728R.

An introduction to the breadth of research in Neuroscience and Cognitive Science. Faculty will present papers to provide historical context and introduction to important issues in the fields of their research.

0101	Ross Miller	Seats (Total: 12)
	M 11:00am - 1:00pm	COL 0211

NACS641 **Introduction to Neurosciences**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Restriction: Permission of instructor.

Detailed examination of neurophysiology and sensorimotor systems.

0101	Jens Herberholz	Seats (Total: 15)
	MW 2:00pm - 3:45pm	BPS 1236

NACS643 **Computational Neuroscience**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: NACS641; and must have completed a course in calculus; and permission of instructor.

Provides a mathematical foundation in computational neuroscience.

0101	Daniel Butts	Seats (Total: 20)
	TuTh 3:30pm - 5:30pm	PLS 1115

NACS645 **Cognitive Science**

Credits: 4 Grading Method: Regular, Audit

Credit only granted for: NACS645 or NACS728Y. Formerly: NACS728Y.

A study of mental representations and computations. Issues examined include computation, representations, decisions, modularity, evolution, innateness, and reductionism.

0101	Robert Slevc	Seats (Total: 25)
	TuTh 10:00am - 11:45am	COL 0211

NACS728F **Selected Topics in Neuroscience and Cognitive Science; Introduction to Functional Magnetic Resonance Imaging**

Credits: 3 Grading Method: Regular, Audit

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Luiz Pessoa	Seats (Total: 5)
	TuTh 11:00am - 12:15pm	PLS 1111

NACS728J **Selected Topics in Neuroscience and Cognitive Science; Neurobiology of Chemosensory Systems**

Credits: 3 Grading Method: Regular

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

0101	Ricardo Araneda	Seats (Total: 7)
	MW 2:00pm - 3:15pm	BPS 1208

NACS728W **Selected Topics in Neuroscience and Cognitive Science; Computational Psycholinguistics**

Credits: 3 Grading Method: Regular, Audit

Graduate seminar on selected topics in contemporary neuroscience and Cognitive science. Extensive readings from the primary literature. Topics vary by semester.

Cross-listed with LING849C and CMSC828F. Credit only granted for LING849C, NACS728W, or CMSC828F. Explores how ideas from machine learning and computational linguistics can be used to formalize questions about human language. The focus will be on modeling the acquisition, processing, and evolution of language. Covers several popular modeling approaches that have been applied to problems in psycholinguistics.

0101	Naomi Feldman	Seats (Total: 10)
	TuTh 11:00am - 12:15pm	MMH 1108B

NACS798 **Master's Non-Thesis Research**

Credits: 1-3 Grading Method: Regular

Individual research course for NACS non-thesis MS degree

Contact department for information to register for this course.

NACS799 **Master's Thesis Research**

Credits: 1-3 Grading Method: Sat-Fail

Individualized research course for NACS thesis MS degree

Contact department for information to register for this course.

NACS898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

NACS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Indivdual instruction course: contact department or instructor to obtain section number

Contact department for information to register for this course.

NAVY Navy Fall 2022

NAVY100 **Introduction to Naval Science**

Credits: 3 Grading Method: Regular General Education: DSHS

Introduction to the naval profession and concepts of sea power. Major topics explored are the mission, strategy, organization, and descriptions of the U.S. Navy and Marine Corps. Students will gain a basic understanding of warfighting capabilities, required leadership skills, training and education, and the duties and responsibilities of a U.S. Navy and Marine Corps Junior Officer. The student will learn Naval courtesy and customs, military justice, and nomenclature as well as the professional competencies required to become a naval officer.

0101	GABRIELLA ROSELLE	Seats (Total: 75)
	MW 8:00am - 9:15am	TYD 1101

FC01	GABRIELLA ROSELLE	Seats (Total: 10)
	MW 8:00am - 9:15am	ARM 0120
	Restricted to students in Freshmen Connection.	

NAVY108 **Naval Science Leadership Lab**

Credits: 1 Grading Method: Regular

Introduces the student to a variety of instructional sessions and/or activities that will develop the leadership component of the Naval ROTC program. The Naval Science leadership lab may include, but not be limited to, close-order drill, physical fitness training, ceremonial functions, Department of the Navy policy, guest lecturers, general military training (GMT), Anti-Terrorism Force Protection (ATFP), traffic safety, nutrition, stress management, prevention of sexual harassment, and operations security.

0101	Michael O'Hara, John Howrey	Seats (Total: 150)
	TuTh 7:00am - 7:50am	ESJ 2208
FC01	Michael O'Hara, John Howrey	Seats (Total: 10)
	TuTh 7:00am - 7:50am	ESJ 2208
	Restricted to students in Freshmen Connection.	

NAVY200 **Leadership and Management**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSHU, SCIS

Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introductory course designed to familiarize students with the theories, processes, and behaviors that enable effective leadership and managerial competence. Students will engage in analytical discussions, review leadership development and education, and Navy/Marine Corps-based case study discussions in order to develop their understanding of personal strengths, values and growth opportunities in the context of team, group and organizational leadership.

0101	Stephen Kosloski	Seats (Total: 40)
	TuTh 8:00am - 9:15am	ESJ 1309

NAVY300 **Naval Ship Systems I (Engineering)**

(Perm req)

Credits: 3 Grading Method: Regular

Recommended: MATH140 and MATH141. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Introduces the student to a comprehensive fundamental understanding of United States naval engineering principles and systems. Topics include thermodynamics, incompressible fluid flow, electrical theory, hydraulics and pneumatics, power train components, fluid/lube oil systems, desalination, fundamentals of nuclear power, propulsion systems (internal combustion, gas turbines, and steam), electrical distribution, ship stability and control and damage control. Students will also examine case studies to apply and analyze course topics within naval ships systems contexts.

0101	Tighe Bailey MW 8:00am - 9:15am	Seats (Total: 25) JMZ 3203

NAVY400 **Naval Operations and Seamanship**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Recommended: NAVY201. Restriction: Permission of UGST-Navy ROTC. Additional information: Priority enrollment will be given to students enrolled in the NROTC program.

Capstone course for senior NROTC Navy-option midshipmen in advanced navigation, communications, naval operations, and naval warfare. Students learn through simulation in a computer classroom known as the Maritime Skills Simulator (MSS), in addition to lectures, discussions, and qualitative and quantitative tests/examinations. Students will engage in discussions regarding the moral and ethical responsibilities or military leaders, as well as the essential attributes of character required for effective leadership.

0101	GABRIELLA ROSELLE TuTh 8:00am - 9:15am	Seats (Total: 30) ARM 0120

NEUR Neuroscience Fall 2022

NEUR200 **Introduction to Neuroscience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: PSYC202. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	Ana Navarro Cebrian TuTh 12:30pm - 1:45pm	Seats (Total: 100) BPS 1243
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 100) BPS 1243

NEUR305 **Neural Systems and Circuits**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in MATH120 or higher MATH course; and a minimum grade of C- in NEUR200 or BSCI353; or equivalent.

Overview of the fundamental principles underlying the systems and circuits of the human nervous system, with a focus on cognitive processes and how these systems interact. Students will engage in the analysis of case studies, apply their knowledge of the neural circuitry to explain everyday phenomena, hypothesize ways to further investigate the nervous system, and propose how knowledge of neural circuits can be used in human society and the resulting implications.

0101	Amanda Chicoli MWF 1:00pm - 1:50pm	Seats (Total: 75) ESJ 2212

NEUR306 Cellular and Molecular Neuroscience

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Earning C- or higher in NEUR200 or BSCI330. Corequisite: Must have completed or be concurrently enrolled in PHYS132 or equivalent course. Credit only granted for: NEUR306 or BSCI353.

Students will gain an appreciation of neuroscience as the nexus of chemistry, physics, and biology. Additionally, they will gain an understanding of how: both individual and networks of neurons function as variable electrical circuits; our nervous systems transduce signals from the outside world and sets-off molecular cascades; the behavior of a neuron can be changed and or remain the same in response to changing variables. Techniques used to study the nervous system at a cellular and molecular level will be discussed.

0101	Chan Lin MWF 9:00am - 9:50am	Seats (Total: 36) BPS 1250
0102	Melissa Caras TuTh 12:30pm - 1:45pm	Seats (Total: 50) PLS 1140

NEUR329 Instructional Assistance Practicum

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Repeatable to 9 credits. Additional information: Course not acceptable toward major requirements in the Neuroscience. Students serve as instructional assistants in selected undergraduate neuroscience courses. Roles and responsibilities and pre/co-requisites are determined on a course- specific basis and approved by the Program Curriculum Committee.

Contact department for information to register for this course.

NEUR379 **Special Topics: Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Recommended: At least a 3.0 neuroscience track GPA and no records of academic misconduct. Restriction: Permission of Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR379H **Special Topics: Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in a topic related to neuroscience, under the direction and close supervision of a member of the University of Maryland faculty.

Contact department for information to register for this course.

NEUR398H **Neuroscience Honors Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

Prerequisite: NEUR200. Corequisite: NEUR379, NEUR479, or equivalent research credit with instructor permission.Restriction: Permission of department. Repeatable to 4 credits. This seminar provides an opportunity for the honors students to share their research projects and sharpen their communication skills through presentations, discussions, and peer-review thesis writing. Guest speakers will be invited to provide additional information and insights into various topics in professional development practice, graduate school info and application, etc.

0101	Nikolas Francis	Seats (Total: 15)
	Tu 3:30pm - 4:20pm	BPS 1208

NEUR405 **Neuroscience Laboratory**

Credits: 3 Grading Method: Regular

Prerequisite: NEUR306 or BSCI353; and PHYS132. Recommended: NEUR305. Cross-listed with: BSCI455. Credit only granted for: PSYC401, NEUR405, BSCI455 or BSCI454.

Students will utilize neurophysiological techniques to examine fundamental principles of neurons and neural circuits. This course will reinforce content from prerequisite NEUR courses. Students will also strengthen skills in experimental design and scientific writing.

Students must pay a $40 laboratory materials fee.

0102	Hilary Bierman F 10:00am - 11:50am Tu 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0103	Hilary Bierman F 10:00am - 11:50am W 1:00pm - 5:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab
0104	Hilary Bierman F 10:00am - 11:50am Th 2:00pm - 6:00pm	Seats (Total: 20) ESJ 1215 BPS 0257	 Lab

NEUR479 **Advanced Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Prerequisite: Complete at least 3 credits of NEUR379 (or equivalent) with the same faculty member as NEUR479 credit. Recommended: Minimum neuroscience track GPA of 3.0. Restriction: Permission of the Neuroscience Program. Repeatable to 12 credits. Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NEUR479H **Advanced Research in Neuroscience**

(Perm req)

Credits: 1-3 Grading Method: Regular

Research and/or integrated reading in neuroscience under the direction and close supervision of a faculty member.

Contact department for information to register for this course.

NFSC Nutrition and Food Science Fall 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available.

NFSC100 **Elements of Nutrition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

0101	Hee-Jung Song Class time/details on ELMs Th 8:30am - 9:20am	Seats (Total: 25) ONLINE HBK 1112	Discussion
0103	Hee-Jung Song Class time/details on ELMs W 11:00am - 11:50am	Seats (Total: 28) ONLINE HBK 1112	Discussion
0104	Hee-Jung Song Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 28) ONLINE HBK 0105	Discussion
0105	Hee-Jung Song Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 28) ONLINE HBK 1112	Discussion
0106	Hee-Jung Song Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 28) ONLINE HBK 0105	Discussion
0107	Hee-Jung Song Class time/details on ELMs W 10:00am - 10:50am	Seats (Total: 28) ONLINE HBK 1108	Discussion
0108	Hee-Jung Song Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 28) ONLINE HBK 1108	Discussion
0109	Hee-Jung Song Class time/details on ELMs Tu 2:00pm - 2:50pm	Seats (Total: 25) ONLINE HBK 1112	Discussion
0112	Hee-Jung Song Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 25) ONLINE JMZ 2123	Discussion
0113	Hee-Jung Song Class time/details on ELMs W 12:00pm - 12:50pm	Seats (Total: 25) ONLINE HBK 0123	Discussion

0114	Hee-Jung Song Class time/details on ELMs Th 11:00am - 11:50am	Seats (Total: 25) ONLINE PLS 1117	Discussion
0115	Hee-Jung Song Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 25) ONLINE HBK 1112	Discussion
FC01	Nadine Sahyoun, Seong-Ho Lee, Hee-Jung Song, Shaik Rahaman MW 4:30pm - 5:20pm F 11:30am - 12:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) MCB 1207 KEY 0116	Discussion
FC02	Nadine Sahyoun, Seong-Ho Lee, Shaik Rahaman, Hee-Jung Song MW 4:30pm - 5:20pm F 1:00pm - 1:50pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) MCB 1207 JMZ 0125	Discussion

NFSC100H **Elements of Nutrition**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS

Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

For general honors students only.

0101	Hee-Jung Song Class time/details on ELMs Tu 3:00pm - 3:50pm	Seats (Total: 12) ONLINE PLS 1158	Discussion

NFSC112 **Food: Science and Technology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: LS | General Education: DSNS

Introduction to the realm of food science, food technology and food processing. An overview of the largest industry in the U.S. with emphasis on the science of food and the technology of food preservation from harvest through processing and packaging to distribution and consumer utilization.

0101	Qin Wang, Abani Pradhan Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 30) ONLINE HBK 0103	Discussion

0102	Qin Wang, Abani Pradhan Class time/details on ELMs Th 4:00pm - 4:50pm	Seats (Total: 30) ONLINE HBK 1108	Discussion
0103	Qin Wang, Abani Pradhan Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 30) ONLINE HBK 0103	Discussion
0104	Qin Wang, Abani Pradhan Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 30) ONLINE HBK 1112	Discussion
0105	Qin Wang, Abani Pradhan Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 30) ONLINE HBK 0123	Discussion
0106	Abani Pradhan, Qin Wang Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 30) ONLINE HBK 0109	Discussion
FC01	Abani Pradhan, Qin Wang MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) TYD 1118	

NFSC220 **Diet: Is it a cause or a solution**

Credits: 3 | Grading Method: Regular, Audit | General Education: DSSP, SCIS

If diet is a very straightforward topic; then why and how does this simple matter result in complicated health problems? Diet can provide a simple solution to numerous health issues. So, why do many people fail to follow this seemingly simple solution and still suffer from obesity and other diet-related diseases? Diet is a topic that most people know but few people understand. In addition, diet has become one of the most important lenses for looking at a variety of social, economic, and cultural issues. Since the concept of diet is continuum and has multifaceted aspects, we need to understand it in broad and multidisciplinary perspectives including social, cultural and economic aspects.

0101	Kathleen Pellechia MWF 12:00pm - 12:50pm	Seats (Total: 60) SKN 0104

NFSC230 **Global Nutrition Sensitive Food Systems**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Recommended: NFSC100 and NFSC112. Additional information: The course will be taught online by the faculty from the University of Maryland and Kwame Nkrumah University of Science and Technology, Ghana.

The United Nations' Sustainable Development Goal 2 aims to end hunger, achieve food security, improve nutrition and promote sustainable agriculture by 2030. West African is among the most food insecure regions with an estimated 31% of the population projected to be food insecure by 2024. Additionally, the World Health Organization estimates that by 2020, Non-Communicable Diseases will account for 80% of the global burden of disease, causing seven out of every 10 deaths in developing countries. A number of initiatives have been tried to leverage agriculture as a more powerful tool to tackle the persistent problems of food insecurity and poor health. This course will prepare students to develop global solutions fit for local contexts that bridge the gap between agriculture and its largely unfulfilled health and nutritional benefits.

0101	Margaret Udahogora	Seats (Total: 15)
	WF 10:00am - 11:15am	ONLINE

NFSC298 **Sports Nutrition Internship Practicum**

Credits: 1 Grading Method: Sat-Fail

This internship allows students to gain hands on experience working in collegiate athletics. Students interact with an interdisciplinary team including registered dietitians, coaches, trainers, physicians and others to develop and enhance nutrition-related knowledge and skills. They also gain invaluable experience and exposure to the day-to-day duties of a collegiate sports dietitian. Students participate in a weekly 50-minute discussion that is held by two sports nutrition dietitians, and complete 9 hours per week hands on activities at Gossett Football Team House, Xfinity Center, and Varsity Team House.

0101	Paula Karamihas, Colleen Carrion	Seats (Total: 16)
	W 12:00pm - 12:50pm	Location: TBA

NFSC350 **Foodservice Operations**

(Perm req)

Credits: 5 Grading Method: Regular

Prerequisite: Minimum grade of C- in BSCI223 and BMGT364. Restriction: Must be in Nutrition and Food Science: Dietetics program.

Introduction to management. Responsibilities in quantity food production and purchasing in a foodservice operation. Laboratory experience in planning, preparation, and service of meals which meet the nutritional needs of the consumer.

0101	Margaret Udahogora	Seats (Total: 9)
	TuTh 4:00pm - 5:15pm	ONLINE
	Tu 8:00am - 1:30pm	MMH 3401 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.	

0102	Margaret Udahogora TuTh 4:00pm - 5:15pm Th 8:00am - 1:30pm	Seats (Total: 9) ONLINE MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		
0103	Margaret Udahogora TuTh 4:00pm - 5:15pm Tu 8:00am - 1:30pm	Seats (Total: 9) ONLINE MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		
0104	Margaret Udahogora TuTh 4:00pm - 5:15pm Th 8:00am - 1:30pm	Seats (Total: 9) ONLINE MMH 3401	 Lab
	Alternating face-to-face/online class meeting. Please see instructor fo details.		

NFSC380 **Methods of Nutritional Assessment**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Minimum of C- in NFSC315 and BCHM461. Restriction: Must be in Nutrition and Food Science: Food Science program.

Methods of assessing human nutritional status of populations and individuals. These methods include dietary, anthropometric, clinical evaluations and biochemical measurements.

0101	Margaret Udahogora MW 1:00pm - 1:50pm M 2:00pm - 5:00pm	Seats (Total: 15) ONLINE MMH 1400	 Lab
0102	Margaret Udahogora MW 1:00pm - 1:50pm W 2:00pm - 5:00pm	Seats (Total: 15) ONLINE MMH 1400	 Lab

NFSC386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of AGNR-Nutrition and Food Science department. Restriction: Junior standing or higher. Formerly: FDSC386 and NUTR386.

Contact department for information to register for this course.

NFSC388 **Honors Thesis Research**

Credits: 3-6 Grading Method: Regular

Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

1301	Qin Wang	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

NFSC399 **Special Problems in Food Science**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Designed for advanced undergraduates. Specific problems in food science will be assigned.

Contact department for information to register for this course.

NFSC421 **Food Chemistry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BCHM461.

Basic chemical and physical concepts are applied to the composition and properties of foods. Emphasis on the relationship of processing technology to the keeping quality, nutritional value, and acceptability of foods.

0101	Liangli Yu	Seats (Total: 60)
	MW 12:30pm - 1:45pm	ONLINE

NFSC422 **Food Product Research and Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: CS General Education: DSSP

Restriction: Senior standing; and must be in a major within AGNR-Nutrition and Food Science department; and permission of AGNR-Nutrition and Food Science department. Formerly: FDSC422.

A capstone course for FDSC majors. A study of the research and development of new food products. Application of food technology, engineering, safety and packaging are integrated by teams of students to develop a new food product from concept to pilot plant scale-up. Students will travel to nearby food processing plants on two to four Saturdays during the semester.

0101	Qin Wang	Seats (Total: 15)	
	W 2:00pm - 2:50pm	BPS 1243	
	F 1:00pm - 5:00pm	MMH 3401	Lab

NFSC423 **Food Chemistry Laboratory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: Must have completed or be concurrently enrolled in NFSC421.

Analysis of the major and minor constituents of food using chemical, physical and instrumental methods in concordance with current food industry and regulatory practices. Laboratory exercises coincide with lecture subjects in NFSC421.

0101	Diana Obanda	Seats (Total: 15)	
	W 8:30am - 9:20am	MMH 3112	
	W 9:30am - 12:20pm	MMH 3419	Lab

NFSC440 **Advanced Human Nutrition**

(Perm req)

Credits: 4 Grading Method: Regular

Prerequisite: Minimum of C- in NFSC100, BCHM462 and BSCI440.

A critical study of physiologic, molecular and metabolic influences on utilization of carbohydrates, lipids, proteins, vitamins, macro-and micro- minerals, and nonnutritive components of food. Interactions of these nutrients and food components will be examined relative to maintaining health.

Jointly offered with NFSC678R.

0101	David Lei	Seats (Total: 49)	
	TuTh 2:00pm - 3:40pm	ONLINE	

NFSC455 **Medical Nutrition Therapy I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: NFSC380. Corequisite: NFSC440.

Advanced clinical nutrition course for dietetics or nutrition science majors. Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders. Includes energy balance and weight management, nutritional genomics, nutrition counseling, autoimmune disease, nutrition for pediatric conditions.

0101	Amy Schachtner-Appel	Seats (Total: 30)	
	MWF 10:00am - 10:50am	JMZ 0122	
	W 2:00pm - 3:50pm	LEF 1201	Lab

NFSC490 **Special Problems in Nutrition**

(Perm req)

Credits: 2-3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: NFSC440; and permission of AGNR-Nutrition and Food Science department.

Individually selected problems in the area of human nutrition.

Contact department for information to register for this course.

NFSC498 **Selected Topics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498A **Selected Topics; Individual Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Contact department for information to register for this course.

NFSC498F **Selected Topics; Current Topics in Nutrition and Chronic Disease**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Prerequisite: NFSC100 or comparable course, or by permission of the instructor. Analysis of current topics related to diet, nutrition, and human health at cellular, molecular and biochemical level. Further, this course will provide overview of the current methods, and in vitro/vivo model systems used in research. Syllabus includes topics relevant to dietary regulation of genes/proteins and their impact on both physiological and pathological conditions including hyperlipidemia, hyperglycemia, and oncogenesis. This course is designed to help students to understand and apply current scientific concepts and research methods, and to obtain necessary skills in evaluation/interpretation of evidence based scientific data.

0101	Shaik Rahaman	Seats (Total: 20)
	M 2:15pm - 5:00pm	PLS 1117

NFSC498J **Selected Topics; Nutraceuticals and Functional Foods**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Cross-listing with NFSC679J. Credit only granted for NFSC498J or NFSC679J.

0101	Liangli Yu	Seats (Total: 10)
	Th 9:30am - 12:15pm	ONLINE

NFSC498K **Selected Topics; Gut Microbiota Health and Metabolic Disease**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

Analysis of topics related to gut microbiota health, diet and nutrition. An introduction to the gut microbiota and its acquisition; How the microbiome is studied; Techniques for analyzing microbiome data; Gut microbiome changes in obesity and associated comorbidities: liver disease, insulin resistance and diabetes; Links between the microbiota, intestinal immune system and adipose tissue immune system; Effects of diet on the gut microbiota; Potential of the gut microbiome in treating obesity and related diseases.

0101	Diana Obanda	Seats (Total: 15)
	W 3:00pm - 5:45pm	MMH 3112

NFSC498T **Selected Topics; Advanced Food Processing and Safety**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Selected current aspects of food.

0101	Rohan Tikekar	Seats (Total: 10)
	Th 3:00pm - 5:30pm	JMZ 2123

NFSC620 **Diet and Cancer Prevention**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: NFSC440; or permission of instructor. Credit only granted for: NFSC620 or NFSC679D. Formerly: NFSC678D.

1. The nature of cancer and the relationship between dietary/nutritional factors and incidence of cancer 2. Basic concepts of general cancer biology with focus on effects of dietary components on genes and their encoded proteins, epigenetic changes and cell signaling 3. Effect of dietary factors in various types of cancer with respect to the benefit of intervention strategies for chemoprevention 4. Scientific knowledge, critical thinking, and the practical application of diet in cancer prevention.

0101	Seong-Ho Lee	Seats (Total: 15)
	Tu 4:00pm - 6:45pm	ONLINE

NFSC624 **Advanced Research Design and Methods in Nutrition Education**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: One statistics course; or permission by the instructor. Credit only granted for: NFSC678V, NFSC498V, or NFSC624. Formerly: NFSC678V.

Health promotion and nutrition education are parts of behavioral and social science that can be used to promote health and prevent diet-related diseases. Their purpose is to positively influence the health-related behaviors of individuals, communities, surrounding environments, and policies. The major goals of this course are to help students understand fundamental behavioral and social models and theories used in the field of community nutrition and to address methodological issues in developing, implementing, and evaluating nutrition education programs.

0101	Hee-Jung Song	Seats (Total: 15)
	F 2:00pm - 4:45pm	ONLINE

NFSC678A **Selected Topics in Nutrition**

Credits: 1-4 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Contact department for information to register for this course.

NFSC678F **Selected Topics in Nutrition; Current Topics in Nutrition and Chronic Disease**

Credits: 3 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Prerequisite: NFSC100 or comparable course, or by permission of the instructor. Analysis of current topics related to diet, nutrition, and human health at cellular, molecular and biochemical level. Further, this course will provide overview of the current methods, and in vitro/vivo model systems used in research. Syllabus includes topics relevant to dietary regulation of genes/proteins and their impact on both physiological and pathological conditions including hyperlipidemia, hyperglycemia, and oncogenesis. This course is designed to help students to understand and apply current scientific concepts and research methods, and to obtain necessary skills in evaluation/interpretation of evidence based scientific data.

0101	Shaik Rahaman	Seats (Total: 20)
	M 2:15pm - 5:00pm	PLS 1117

NFSC678K **Selected Topics in Nutrition; Gut Microbiota Health and Metabolic Disease**

Credits: 3 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Analysis of topics related to gut microbiota health, diet and nutrition. An introduction to the gut microbiota and its acquisition; How the microbiome is studied; Techniques for analyzing microbiome data; Gut microbiome changes in obesity and associated comorbidities: liver disease, insulin resistance and diabetes; Links between the microbiota, intestinal immune system and adipose tissue immune system; Effects of diet on the gut microbiota; Potential of the gut microbiome in treating obesity and related diseases.

0101	Diana Obanda W 3:00pm - 5:45pm	Seats (Total: 15) MMH 3112

NFSC678R **Selected Topics in Nutrition; Advanced Human Nutrition**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Individual or group study in an area of nutrition.

Jointly offered with NFSC440. Prerequisites: NFSC100, BCHM462, BSCI440, and permission of department.

0101	David Lei TuTh 2:00pm - 3:40pm	Seats (Total: 49) ONLINE

NFSC679J **Selected Topics in Food Science; Nutraceuticals and Functional Foods**

Credits: 3 Grading Method: Regular

Individual or group study in an area of food science.

Cross-listing with NFSC498J. Credit only granted for NFSC498J or NFSC679J.

0101	Liangli Yu Th 9:30am - 12:15pm	Seats (Total: 10) ONLINE

NFSC679R **Selected Topics in Food Science; Food Safety and Nutrition Risk Assessment**

Credits: 4 Grading Method: Regular

Individual or group study in an area of food science.

0101	Abani Pradhan M 1:00pm - 2:40pm F 11:00am - 1:30pm	Seats (Total: 15) MMH 3112 MMH 3112	 Lab

NFSC679T **Selected Topics in Food Science; Advanced Food Processing and Safety**

Credits: 2 Grading Method: Regular

Individual or group study in an area of food science.

0101	Rohan Tikekar Th 3:00pm - 5:30pm	Seats (Total: 10) JMZ 2123

NFSC688 **Seminar in Nutrition and Food Science**

Credits: 1-3 Grading Method: Sat-Fail, Audit

This is a seminar course presentedy by NFSC graduate students and invited speakers in the field of nutrition and food science.

0101	David Lei	Seats (Total: 25)
	W 12:00pm - 12:50pm	ONLINE

NFSC690 **Nutrition and Aging**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: NFSC440 or BSCI440; or students who have taken courses with comparable content may contact the department.

Examine the physiological, social and psychological changes that may occur with aging and their impact on nutritional status and on successful aging.

0101	Nadine Sahyoun	Seats (Total: 15)
	F 10:00am - 12:45pm	KEY 0119

NFSC699 **Problems in Nutrition and Food Science**

(Perm req)

Credits: 1-4 Grading Method: Regular, Audit

Credit according to time scheduled and magnitude of problem. An experimental program on a topic other than the student's thesis problem will be conducted. Four credits shall be the maximum allowed toward an advanced degree.

Contact department for information to register for this course.

NFSC735 **Food Toxicology**

Credits: 3 Grading Method: Regular, Audit

Recommended: BCHM462, BSCI440, or CHEM131. Cross-listed with MIEH735. Credit only granted for: MIEH735 or NFSC735.

An introduction to basic concepts in toxicology in relation to toxic food contaminants and additives; both synthetic and naturally occurring. Focus on exposure routes, molecular targets and susceptible individuals. Also includes regulatory toxicology with respect food toxins.

0101	Paul Turner, Robert Buchanan	Seats (Total: 20)
	W 1:00pm - 3:45pm	SPH 0302

NFSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

First and second semesters. Credit in proportion to work done and results accomplished. Investigation in some phases of foodservice administration which may form the basis of a thesis. results in the form of a thesis.

Contact department for information to register for this course.

NFSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

First and second semesters. Oral reports on special topics or recently published research in nutrition. Distinguished scientists are invited as guest lecturers. A maximum of three credits allowed for the M.S.

Contact department for information to register for this course.

NFSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

NIAS National Institute of Aeronautics - North Carolina Fall 2022

NIAS788T **Advanced Topics; Heat Transfer Theory and Applications**

Credits: 3 Grading Method: Regular, Audit

Contact department for information to register for this course.

NIAS788W **Advanced Topics; Wing Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

TV01	Instructor: TBA	Seats (Total: 1)
	Contact instructor or department for details.	

PEER Health Center Fall 2022

PEER312 **Peer Education: Preventing Power-Based Violence**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DVCC

Prerequisite: Students must complete an interview before enrolling in this course. Restriction: Permission of instructor; and minimum cumulative GPA of 2.5. Credit only granted for: HLTH382 or PEER312. Formerly: HLTH382. Additional information: Students are required to attend a 40-hour training the week before classes begin which will equip them with the information and tools necessary to provide outreach as early as the first week of the Fall classes. Some evening and weekend hours may be required.

Designed to train students to become Peer Educators who are responsible for presenting to members of the campus community about the complex dynamics surrounding issues of power-based personal violence. This includes: sexual assault, relationship violence, stalking, bystander intervention, consent, and rape culture. Students fully learn the on and off-campus resources for victim/survivors. Programming is done in classroom settings, residence halls, Greek life spaces, and at tables during special events.

0101	Laura Widener	Seats (Total: 15)
	M 4:00pm - 5:00pm	JMZ 1117
	W 4:00pm - 6:00pm	JMZ 1117

PEER318 **CARE Peer Advocacy**

(Perm req)

Credits: 3 Grading Method: Regular

Designed to train students to become Peer Advocates who are responsible for providing crisis and short-term support services for victims of sexual assault, relationship violence, stalking, sexual harassment and child abuse.Students will be meeting with clients and providing emotional support and resources (both on and off campus). During weekly classes, students will be trained in trauma-informed crisis intervention procedures that will not only help them assist clients during in- person sessions but will help them support clients via the crisis cell. Students will be expected to maintain the crisis cell (on a shared basis)throughout the semester as well as maintain 10 hours per week in the CARE office. In addition to maintaining the crisis cell and office hours, during the spring semester students will be tasked with working as a team in planning and executing a Take Back the Night event.

0101	Christina Jay	Seats (Total: 15)
	W 4:30pm - 6:00pm	JMZ 1103
	Contact instructor or department for details.	

PEER319 **CARE to Stop Violence Outreach Peer Program**

(Perm req)

Credits: 3 Grading Method: Regular

A two semester, 6-credit course designed to train students in the knowledge, values and skills to build professional relationships and become leaders in community development related to the social justice issue of sexual misconduct with emphasis on the college campus environment.

0101	Grace Boudreau	Seats (Total: 15)
	MW 4:00pm - 5:00pm	JMZ 3122
	Contact instructor or department for details.	
	Contact department or instructor for details.	

PERS Persian Fall 2022

PERS101 **Elementary Persian I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Introduction to the alphabet, pronunciation patterns, greetings, basic structures, and other fundamentals, with emphasis on oral and aural skills.

0101	Bahareh Jalehmahmoudi MTuWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 15) HJP 2114 HJP 2114	 Lab

PERS201 **Intermediate Persian I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: PERS102; or Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be native/fluent speaker of Persian.

Development of speaking, reading, writing, listening and cultural knowledge through wide variety of activities.

0101	Bahareh Jalehmahmoudi MWF 12:00pm - 12:50pm Th 12:00pm - 12:50pm	Seats (Total: 15) HJP 2114 HJP 3115	 Lab

PERS280 **Art Activism in Iran**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Credit only granted for: PERS289M, ARTH389O, or PERS280. Formerly: PERS298M.

Explores Iranian artists' intent and hope for change and their critical and playful strategies of making a difference through their visual or performing arts created since 1980. While exploring key concepts, contexts, and debates by examining a variety of artworks, we explore diverse and unique transgressive stories, strategies, and styles that these works present to address themes of social justice through the art. We examine how multimedia art forms (dance, theatre, cinema, painting, digital art, and music) empower Iranian artists to practice their identity and exercise their agency as these aspects intersect with race, ethnicity, class, sexuality, ability, and education in a shifting and multilayered context.

0101	Marjan Moosavi MW 2:00pm - 3:15pm	Seats (Total: 25) ONLINE	

PERS283 **Iranian Cinema**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Cross-listed with: CINE283. Credit only granted for: PERS283, CINE283 or FILM298B.

Introduction to Iranian cinema, society, and culture. Taught in English.

Cross-listed with FILM298B. Credit only granted for PERS283, FILM283, or FILM298B.

0101	Marjan Moosavi MW 3:30pm - 4:45pm	Seats (Total: 30) JMZ 2206	

PERS298B **Special Topics in Persian Studies; Language Ideologies and Linguistic Diversity in Iran**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topic to be announced when course is offered.

This course delves into the role of language in contemporary Iranian society and explores socially significant topics such as standard language ideology, language attitudes, minority language rights, and language and social identity in multilingual Iran primarily through the scholarly lens of sociolinguistics. Two years of Persian language courses (or equivalent proficiency) required. Taught in English.

0101	Ali Abasi	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	JMZ 1122

PERS298E **Special Topics in Persian Studies; Visual Cultures of Islam**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topic to be announced when course is offered.

Crosslisted with ARTH389L, AAST298B, HIST219E, and RELS219E. Credit granted for HIST219E, ARTH389L, AAST298B, PERS298E, or RELS219E. Visual Cultures of Islam is part of the Digital Islamic Studies Curriculum (digitalislam.umich.edu). This course is taught by an expert in the field of Islamic Art at the University of Michigan, and digitally shared with the University of Maryland. The course explores definitions of "Islamic" art and investigates various visual cultures of Islam around the world from the 7th to the 20th century. The course meets twice a week in real time using video conferencing technology and students are able to enroll directly at Maryland for course credit.

0101	Instructor: TBA	Seats (Total: 12)
	TuTh 11:30am - 1:00pm	TLF 2100

PERS299 **Directed Study in Persian Language**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed study in Persian. Taught in Persian.

Contact department for information to register for this course.

PERS301 **Advanced Persian I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS202; or permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must not be native/fluent speaker of Persian.

Development of speaking, reading, writing, listening and cultural knowledge through wide variety of activities, especially reading.

0101	Nahal Akbari-Saneh	Seats (Total: 10)
	MWF 1:00pm - 1:50pm	HJP 2114

PERS311 **Persian Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PERS301; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Examines issues, values, institutions of the contemporary Persian and Persianete world, primarily through analysis and discussion of current events as reported in the written and audiovisual press. Focus will be on increasing content knowledge as well as linguistic competency in Persian. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 10)
	MWF 12:00pm - 12:50pm	HJP 3115

PERS398Q **Special Topics in Persian Studies; Social Issues in Contemporary Iran**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topic to be announced when course is offered. Taught in Persian.

Permission required. Taught in Persian. Blending content and advanced language acquisition, the course examines a range of issues of social significance in today's Iran from multiple perspectives. The primary focus is on developing Superior proficiency in the language and culture.

0101	Ali Abasi	Seats (Total: 10)
	TuTh 1:30pm - 2:45pm	HJP 3115

PERS398R **Special Topics in Persian Studies; Persian for Professional Purposes**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topic to be announced when course is offered. Taught in Persian.

This advanced-level course introduces students to various genres of use in contemporary Persian both written and spoken. Analysis of various recurring rhetorical contexts as well as typified linguistic responses to such contexts constitutes the primary focus in the course. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 10)
	F 9:00am - 11:45am	HJP 3115

PERS399 **Directed Study in Persian**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Directed study with faculty supervision.

Contact department for information to register for this course.

PERS399C **Directed Study in Persian; Living/Learning in Persian House**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Directed study with faculty supervision.

Prerequisite: Permission of departmetn. Taught in Persian.

0101	Manizhe Galledari	Seats (Total: 5)
	Contact instructor or department for details.	

PERS399D **Directed Study in Persian; Capstone Research Project**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Directed study with faculty supervision.

Permission required. Taught in Persian.

0101	Nahal Akbari-Saneh	Seats (Total: 10)
	M 9:00am - 11:45am	HJP 3115

PERS498M **Special Topics in Persian Studies; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

Cross-listed with CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller	Seats (Total: 15)
	W 6:00pm - 8:30pm	JMZ 1215

PERS498N **Special Topics in Persian Studies; Masterpieces of Persian Literature: Classical Persian Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

This course is designed to represent a holistic point of view of the vast world of Persian Literature Throughout the different literary genre. We will be focused on both Verse and Prose from the classical text starting from the 11th century and will proceed by a multitude of samples in Persian literature. Taught in Persian.

0101	Mohammad Bazargan	Seats (Total: 10)
	Tu 9:30am - 12:00pm	JMZ 3202

PERS498O **Special Topics in Persian Studies; Persian Literature in Modern Iran**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topic and language to be announced when offered.

This course facilitates the development of Persian language proficiency and domain-specific knowledge at Advanced High Level on the ACTFL scale. The course assumes a solid knowledge of the core grammatical and lexical features of the Persian Language and involves reading-based discussions and writing activities. The domain of focus is Modern Persian literature. Taught in Persian.

0101	Mohammad Bazargan	Seats (Total: 10)
	W 9:00am - 11:45am	HJP 3115

PERS689B **Special Topics in Persian Studies**

Credits: 3 Grading Method: Regular, Audit

In-depth analysis of a particular aspect of Persian studies. In Persian.

Contact department for information to register for this course.

PERS689M **Special Topics in Persian Studies; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Audit

In-depth analysis of a particular aspect of Persian studies. In Persian.

Cross-listed with PERS498M, CMLT679D, HIST419C, RELS429B, WGSS498D, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller	Seats (Total: 15)
	W 6:00pm - 8:30pm	JMZ 1215

PHIL Philosophy Fall 2022

Click here for fuller PHIL course descriptions.

PHIL100 **Introduction to Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

0101	Dan Moller MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 TWS 1105	Discussion
0102	Dan Moller MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 ESJ B0322	Discussion
0103	Dan Moller MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 ESJ B0322	Discussion
0104	Dan Moller MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 SQH 1121	Discussion
0105	Dan Moller MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 25) SHM 2102 KEY 0103	Discussion
0106	Dan Moller MW 10:00am - 10:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 KEY 0103	Discussion
FC01	Michael McCourt TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) TWS 0221	

PHIL140 **Contemporary Moral Issues**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

0101	Aida Roige Mas Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 28) ONLINE SYM 0215	Discussion
0102	Aida Roige Mas Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 28) ONLINE EDU 3315	Discussion

0103	Aida Roige Mas Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 28) ONLINE EDU 3315	Discussion
0104	Aida Roige Mas Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 28) ONLINE MMH 1304	Discussion
0105	Aida Roige Mas Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 28) ONLINE EDU 2119	Discussion
0106	Aida Roige Mas Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 28) ONLINE EDU 2119	Discussion
FC01	Charles Barclay MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ASY 3203	
FC02	Shen Pan TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ASY 3211	
FC03	Andrew Fyfe MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) MTH 0304	
FC04	Shen Pan TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 30) ASY 3211	

PHIL170 **Introduction to Symbolic Logic**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR

This course will introduce the basic concepts and techniques of modern symbolic logic, with an emphasis on developing skills in two areas: first, translating between ordinary language and logical notation; second, establishing the validity or invalidity of arguments using the methods of truth tables, deductions, and countermodels. Although the subject of symbolic logic was developed by mathematicians and philosophers for their own special purposes (which we will discuss), logical concepts and techniques have found applications in a variety of disciplines, including computer science, economics, law, linguistics, and psychology. We may also consider some of these applications.

0101	Paolo Santorio MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 25) SHM 2102 LEF 1220	Discussion
0102	Paolo Santorio MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) SHM 2102 SQH 2120	Discussion
0103	Paolo Santorio MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 25) SHM 2102 TWS 1321	Discussion
0104	Paolo Santorio MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) SHM 2102 ESJ 2204	Discussion
0105	Paolo Santorio MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) SHM 2102 HBK 0123	Discussion
0106	Paolo Santorio MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) SHM 2102 HBK 0123	Discussion

PHIL201 **Spooky Action at a Distance? Where Physics Meets Metaphysics**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HO	General Education: DSHU, SCIS

Recommended: Students should be comfortable with moderately mathematical presentations. Placement into MATH110 or higher is strongly recommended. Credit only granted for: PHIL201 or PHIL209I. Formerly: PHIL209I.

Einstein believed that physics should represent a "reality in space and time, free from spooky action at a distance." He worried that quantum theory failed this test. Later developments suggest that quantum systems really can influence one another instantly, no matter how far apart they are, but the question remains controversial and experiments are not sufficient to provide an answer. This self-contained course will draw on philosophy and physics to investigate the controversy.

0101	Allen Stairs Tu 11:00am - 12:15pm Class time/details on ELMs	Seats (Total: 30) ONLINE ONLINE	

PHIL203 The Rights and Wrongs of Killing People

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: PHIL209J or PHIL203. Formerly: PHIL209J.

Virtually everyone thinks it's permissible to kill people only in special circumstances. But why is killing usually wrong? Is it ever acceptable to kill an innocent human being intentionally? This course raises these and related questions and examines cases such as terrorism, suicide, abortion, euthanasia, the death penalty, war. Except for a brief discussion of animals, all the controversies considered deal with killing and causing death to human beings.

0101	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 26) JMZ 0220 SQH 1101	Discussion
0102	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 26) JMZ 0220 SQH 1101	Discussion
0103	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 26) JMZ 0220 SQH 1123	Discussion
0104	Daniel Blair MW 2:00pm - 2:50pm F 10:00am - 10:50am	Seats (Total: 26) JMZ 0220 EDU 2119	Discussion
0105	Daniel Blair MW 2:00pm - 2:50pm F 11:00am - 11:50am	Seats (Total: 26) JMZ 0220 EDU 2119	Discussion

0106	Daniel Blair MW 2:00pm - 2:50pm F 1:00pm - 1:50pm	Seats (Total: 26) JMZ 0220 KNI 1206	Discussion

PHIL210 **Philosophy of the Universe**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Credit only granted for: PHIL209U or PHIL210. Formerly: PHIL209U.

An exploration of how philosophy can help us understand our place in the cosmos. The course covers a variety of topics at the intersection of science and philosophy, such as: How does the world we observe emerge from the microscopic world science tells us about? What are laws of nature? What is time? What is life? The emphasis is not on leading students to particular conclusions about these topics. Instead, it is to learn how to ask these questions critically and to understand what would count as relevant evidence for an answer.

0101	Fabrizio Cariani MW 12:00pm - 12:50pm F 10:00am - 10:50am	Seats (Total: 25) TYD 1102 EGR 1102	Discussion
0102	Fabrizio Cariani MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TYD 1102 TWS 0320	Discussion
0103	Fabrizio Cariani MW 12:00pm - 12:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TYD 1102 TWS 0320	Discussion

PHIL220 **Bioethics: Regulating Right and Wrong**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DSSP

Credit only granted for: PHIL209A or PHIL220. Formerly: PHIL209A.

Bioethicists formulate ethical guidelines. They answer questions such as: When life-saving health resources are scarce, who should get them? Should we increase supply of one such resource, kidneys, by buying them from living "donors"? If drug trials in developing countries benefit patients who consent to participate, are the trials ethical, even if the same research would be forbidden in the US? If a sick person aims to hasten her death, how, if at all, might her doctor permissibly help her? In this course, students construct and defend ethical rules in four domains: research ethics, allocation of scarce resources, markets in organs, and physician-assisted dying.

0101	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 10:00am - 10:50am	Seats (Total: 25) ONLINE ESJ 2204 PHY 2124	Discussion
0102	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 11:00am - 11:50am	Seats (Total: 25) ONLINE ESJ 2204 PHY 2124	Discussion
0103	Samuel Kerstein Class time/details on ELMs W 9:00am - 9:50am F 1:00pm - 1:50pm	Seats (Total: 25) ONLINE ESJ 2204 JMZ 3203	Discussion

PHIL245 **Political and Social Philosophy I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

A critical examination of such classical political theories as those of Plato, Hobbes, Locke, Rousseau, Mill, Marx, and such contemporary theories as those of Hayek, Rawls, and recent Marxist thinkers.

0101	Antong Liu TuTh 4:00pm - 4:50pm F 10:00am - 10:50am	Seats (Total: 25) TWS 0320 ATL 2352	Discussion
0102	Antong Liu TuTh 4:00pm - 4:50pm F 12:00pm - 12:50pm	Seats (Total: 25) TWS 0320 SQH 1101	Discussion
0103	Antong Liu TuTh 4:00pm - 4:50pm F 1:00pm - 1:50pm	Seats (Total: 25) TWS 0320 SQH 1101	Discussion

PHIL250 **Philosophy of Science I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO | General Education: DSHU

Main issues in the philosophy of science. Special attention to the ways scientific developments have influenced the philosophy of science and how philosophy of science has influenced scientific progress. Case studies of selected historical episodes in which science and philosophy have interacted significantly, focusing on the physical, biological, or social sciences.

0101	Harjit Bhogal	Seats (Total: 30)
	TuTh 9:30am - 10:45am	TLF 1103

PHIL269M **Special Topics in Study Abroad II; Moral Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL269Y **Special Topics in Study Abroad II; Truth & Reality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL282 **Free Will & Determinism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: HO General Education: DSHU

A study of the main positions and arguments in the free will debate in contemporary analytic philosophy.

0101	Allen Stairs	Seats (Total: 30)
	Class time/details on ELMs	ONLINE
	W 2:00pm - 3:15pm	ONLINE

PHIL309B **Philosophical Problems; (Anti-) Realism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A focused study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to to generate critical analyses or proposed resolutions of issues in the contemporary philosophical literature.

0101	Georges Rey	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	LEF 1201

PHIL309K **Philosophical Problems; Political Epistemology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A focused study of a contemporary philosophical problem or issue. Topics will vary, but the course will encourage students to to generate critical analyses or proposed resolutions of issues in the contemporary philosophical literature.

Cross-listed with PHPE308E. Credit only granted for PHIL309K or PHPE308E.

0101	Daniel Blair MW 9:00am - 10:15am	Seats (Total: 25) ARC 1105	

PHIL310 **Ancient Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: Must have completed 6 credits in philosophy or classics.

A study of the origins and development of philosophy in ancient Greece and Rome, focusing on Socrates, Plato, Aristotle, the Epicureans, and Stoics.

0101	Christopher Masciari MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 25) ESJ 0215 CHE 2145	 Discussion
0102	Christopher Masciari MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 25) ESJ 0215 SQH 1103	 Discussion
0103	Christopher Masciari MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 25) ESJ 0215 LEF 0135	 Discussion

PHIL341 **Ethical Theory**

Credits: 3 Grading Method: Regular

Prerequisite: 6 credits in PHIL courses.

A critical examination of classical and contemporary systems of ethics, such as those of Aristotle, Kant, Mill, and Rawls.

Prerequisite: 6 credit hours in philosophy.

0101	Jeremiah Tillman TuTh 11:00am - 12:15pm	Seats (Total: 30) BPS 1232	

PHIL344 **Philosophy of Race**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVUP

Credit only granted for: PHIL344 or PHIL308Y. Formerly: PHIL308Y.

A survey of philosophical arguments involving race and racism. Guiding questions will include: How have philosophers and scientists conceived of the concept of race? Is race a coherent concept? Does it help us explain differences in performance and behavior? What makes racism, racial prejudice, and discrimination wrong? What is the point of equality? Do we owe reparations to victims of racism?

0101	Cody Gomez	Seats (Total: 30)
	Th 12:30pm - 1:45pm Class time/details on ELMs	ONLINE ONLINE

PHIL362 **Theory of Knowledge**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses; and PHIL170. Formerly: PHIL462.

Some central topics in the theory of knowledge, such as perception, memory, knowledge, and belief, skepticism, other minds, truth, and the problems of induction.

0101	Georges Rey	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	KEY 0100

PHIL370 **Logical Theory I: Metatheory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHIL271 or CMSC250; or permission of the instructor.

This course is an introduction to logical "metatheory", that is, to logical reasoning about logic systems themselves. Topics include alternative alternative proof-theoretic presentations of logical systems as well as soundness and completeness theorems for propositional and first-order logic. Along the way, we will deepen our understanding of the elementary set-theoretic concepts underlying first order logic. Other topics may include basic results in the semantics of first order logic (such as the Craig interpolation theorem, the Beth definability theorem, or the Lowenhein-Skolem theorem).

0101	John Horty	Seats (Total: 25)
	TuTh 3:30pm - 4:45pm	SQH 1119

PHIL386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-Philosophy department; and junior standing or higher.

Consult Director of Undergraduate Studies: C. Manekin. Prerequisites: 12 credit hours of philosophy and 3.0 GPA. Carries no credit toward philosophy major.

Contact department for information to register for this course.

PHIL408D **Topics in Contemporary Philosophy; Theories of Democracy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

Cross-listed with PHPE408D. Credit only granted for PHPE408D or PHIL408D. Many think that democracy is the only acceptable form of government, but it is hard to articulate why. This course will look at normative arguments in defense of democracy. It will also look at criticisms of these arguments, along with normative arguments in favor of non-democratic forms of government. The course will also look at theoretical and empirical work concerning how democracies actually function in the real world (e.g., the median voter theorem, the Hong-Page theorem, McKelvey Schofield chaos theorem, etc.), and ask how this theoretical and empirical work should inform our normative arguments for democracy.

0101	Aylon Manor	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 0125

PHIL408E **Topics in Contemporary Philosophy; The Ethics of Markets**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

Cross-listed with PHPE408E. Credit only granted for PHPE408E or PHIL408E. Markets are pervasive throughout our lives, but we rarely think about them from an ethical perspective. This course examines questions at the intersection of ethics and markets. It asks questions like: what is the extent of permissible market exchange? What sorts of things can be bought and sold on the market? Do markets corrupt our morals? Do markets presuppose certain morals? Does trade between nations lead to tolerance? What are the social responsibilities of business?

0101	Antong Liu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	BPS 1228

PHIL408P **Topics in Contemporary Philosophy; Philosophy of Psychiatry**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues. Source material will be selected from recent books and articles.

0101	Elizabeth Schechter	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	SQH 1121

PHIL412 **The Philosophy of Plato**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in PHIL courses.

A critical study of selected dialogues.

Cross-listing with PHPE408J. Credit only granted for PHIL412 or PHPE408J.

0101	Conor Stark	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0207

PHIL418X **Topics in Epistemology/Metaphysics; Bayesian Epistemology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues in epistemology or metaphysics. Source material will be selected from recent books and articles.

Cross-listed with PHPE408x. Credit only granted for PHIL418X or PHPE408X. Epistemology is the philosophical study of knowledge and rational belief. Bayesian epistemology frames this study by centering not on full beliefs (like my belief that there is no chocolate on the moon) but instead on graded belief. This is for example what happens when we say that we are 80% confident that a certain party will win an election. Among the topics to be covered in the class are: the connection between degrees of belief and the mathematical theory of probability; the principles governing whether degrees of belief are rational; the principles whether agents respond appropriately to evidence; the role of degrees of belief in practical decision making. The approach in the class will be to present these topics without presupposing prior competence in epistemology.

0101	Fabrizio Cariani	Seats (Total: 24)
	MW 3:00pm - 4:15pm	TLF 1103

PHIL438L **Topics in Value Theory; Philosophy and Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive examination of contemporary problems and issues in ethics, aesthetics, political philosophy and related areas. Source material will be selected from recent books and articles.

Cross-listed with PHPE408K. Credit only granted for PHIL438L or PHPE408K. Philosophy and Law deal with many of the same concepts but from different perspectives. This class explores ways in which the two fields interact, demonstrating how the use of philosophical tools can enhance understanding of many areas of law, from free speech, the rules of evidence, and criminal law to contracts, antitrust, and corporations. It will expose students to concrete legal issues that lawyers deal with on a day-to-day basis. At the same time, this cross-disciplinary class, which should not be confused with philosophy of law, will deepen the student's knowledge of critical ideas in epistemology, metaphysics, philosophy of language, and other philosophical subjects. Previous exposure to basic philosophical concepts would be helpful, though not essential.

0101	Kenneth Glazer	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 1313

PHIL445 **Contemporary Political Philosophy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have completed 3 credits in philosophy or political theory; or permission of ARHU-Philosophy department. And sophomore standing or higher.

Major trends in contemporary political philosophy: liberal, libertarian, communitarian, socialist, feminist.

0101	Antong Liu	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	MTH 1311

PHIL469Y **Study Abroad Special Topics IV; Philosophy of Science II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PHIL498F **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL498G **Topical Investigations; Topical Investigation**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite:Two courses in philosophy or permission of the department.

Contact department for information to register for this course.

PHIL660 **Metaphysics, Mind, and Language**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A basic course on selected issues in metaphysics, philosophy of mind, and philosophy of language for beginning graduate students, covering a number of topics in depth, to provide a springboard for further study and research in the area.

0101	Paolo Santorio	Seats (Total: 15)
	M 4:30pm - 7:00pm	SKN 1116

PHIL688B **Selected Problems in Philosophy; Topics in Epistemology/Metaphysics; Bayesian Epistemology**

Credits: 3 Grading Method: Regular, Audit

Epistemology is the philosophical study of knowledge and rational belief. Bayesian epistemology frames this study by centering not on fullbeliefs (like my belief that there is no chocolate on the moon) but instead on graded belief. This is for example what happens when we say that we are 80% confident that a certain party will win an election. Among the topics to be covered in the class are: the connection between degrees ofbelief and the mathematical theory of probability; the principles governing whether degrees of belief are rational; the principles whetheragents respond appropriately to evidence; the role of degrees of belief in practical decision making. The approach in the class will be to present these topics without presupposing prior competence in epistemology.

0101	Fabrizio Cariani	Seats (Total: 6)
	MW 3:00pm - 4:15pm	TLF 1103

PHIL688T **Selected Problems in Philosophy; Introduction to Semantics**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with LING660. Credit granted for LING660 or PHIL688T.

0101	Alexander Williams	Seats (Total: 15)
	TuTh 9:30am - 10:45am	MMH 1108B

PHIL788G **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

PHIL788I **Research in Philosophy; Research in Philosophy**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Contact department for information to register for this course.

PHIL799 **Master's Thesis Research; Masters Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHIL808K **Seminar in the Problems of Philosophy**

Credits: 3 Grading Method: Regular, Audit

0101	Eric Pacuit	Seats (Total: 15)
	W 4:30pm - 7:00pm	SKN 1116

PHIL808M **Seminar in the Problems of Philosophy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

0101	Hallie Liberto Th 2:00pm - 4:30pm	Seats (Total: 16) SKN 1116

PHIL888 **Professional Mentoring for Doctoral Students**

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor on various aspects of professional development.

Contact department for information to register for this course.

PHIL889 **Pedagogical Mentoring for Doctoral Students**

(Perm req)

Credits: 1-3 Grading Method: Sat-Fail

Work with a faculty advisor to develop and improve pedagogical skills.

Contact department for information to register for this course.

PHIL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PHIL899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHPE Philosophy, Politics, and Economics Fall 2022

PHPE308E **Special Topics in Philosophy, Politics, and Economics; Political Epistemology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL309K. Credit only granted for PHIL309K or PHPE308E.

0101	Daniel Blair MW 9:00am - 10:15am	Seats (Total: 25) ARC 1105

PHPE308T **Special Topics in Philosophy, Politics, and Economics; The Ethics of Data and Deomcracy**

Credits: 3 Grading Method: Regular

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

0101	Aylon Manor F 12:00pm - 2:30pm	Seats (Total: 25) ONLINE

PHPE386 **Experiential Learning Practicum in Philosophy, Politics, and Economics**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher.

For students who wish to gain experience working in research outside the classroom. Pending approval of the department, students may work at a professional site or remotely under professional supervision - your primary supervisor must be a professional in the field. Beyond working at a professional site or under professional supervision, students will have to complete further assignments to receive a passing grade in the course. Students may take PHPE386 for three-six credits, but only three credits will count towards the major requirements. PHPE386 is only open to those with junior standing or above.

Contact department for information to register for this course.

PHPE400 **Individual and Group Decision-Making**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Foundational issues that arise within the theories of rational choice that underlie the treatments of decision-making found in economics, politics, and the other social sciences. The course is focused on individual decisions (rational choice theory), strategic decisions (game theory) and group decisions (social choice theory). In addition to presenting the formal models of decision making, we also discuss to what extent these mathematical theories explain social interactions. An important aspect of the course is to introduce students to the ways in which economic analysis has been applied to issues in social and political philosophy. Readings will be drawn from the literature in economics, psychology, statistics and political science, as well as philosophy.

Credit granted for PHPE400 or GVPT449D.

0101	Eric Pacuit	Seats (Total: 30)
	MW 11:00am - 12:15pm	SQH 1117

PHPE401 **Social Philosophy and Political Economy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Examines capitalism and socialism as differing modes of economic production through several different theoretical lenses. We begin by examining capitalism and socialism as they developed historically, by looking primarily at the work of Adam Smith and Karl Marx. Then, we turn our attention to one of the most important debates in 20th century economics: to what extent rational economic calculation is possible in a socialist commonwealth. After this we turn our attention to how capitalist and socialist modes of production functioned in practice. We end by turning our attention to the ethics of capitalism and socialism: which mode of economic production is most just?

0101	Aylon Manor	Seats (Total: 30)
	TuTh 12:30pm - 1:45pm	LEF 1201

PHPE402 **Senior Capstone in Philosophy, Politics, and Economics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in the Philosophy, Politics, and Economics major; and must have senior standing.

Senior capstone course for the Philosophy, Politics, and Economics major. The exact content of the course will be determined by the instructor who teaches it. The purpose of the course is to pursue sustained inquiry on a narrow philosophical topic, using the tools and methods from economics and political science to help analyze the topic. The course ends with a substantial research paper, where the student should demonstrate an ability to use the tools of philosophy, political science, and economics in his or her analysis.

0101	Harjit Bhogal	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	ATL 2330

PHPE408D **Advanced Topics in Philosophy, Politics, and Economics; Theories of Democracy**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL408D. Credit only granted for PHPE408D or PHIL408D. Many think that democracy is the only acceptable form of government, but it is hard to articulate why. This course will look at normative arguments in defense of democracy. It will also look at criticisms of these arguments, along with normative arguments in favor of non-democratic forms of government. The course will also look at theoretical and empirical work concerning how democracies actually function in the real world (e.g., the median voter theorem, the Hong-Page theorem, McKelvey Schofield chaos theorem, etc.), and ask how this theoretical and empirical work should inform our normative arguments for democracy.

0101	Aylon Manor	Seats (Total: 30)
	TuTh 9:30am - 10:45am	JMZ 0125

PHPE408E **Advanced Topics in Philosophy, Politics, and Economics; The Ethics of Markets**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL408E. Credit only granted for PHPE408E or PHIL408E. Markets are pervasive throughout our lives, but we rarely think about them from an ethical perspective. This course examines questions at the intersection of ethics and markets. It asks questions like: what is the extent of permissible market exchange? What sorts of things can be bought and sold on the market? Do markets corrupt our morals? Do markets presuppose certain morals? Does trade between nations lead to tolerance? What are the social responsibilities of business?

0101	Antong Liu	Seats (Total: 30)
	TuTh 11:00am - 12:15pm	BPS 1228

PHPE408J **Advanced Topics in Philosophy, Politics, and Economics; The Philosophy of Plato**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listing with PHIL412. Credit only granted for PHIL412 or PHPE408J.

0101	Conor Stark	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0207

PHPE408K **Advanced Topics in Philosophy, Politics, and Economics; Philosophy and Law**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL438L. Credit only granted for PHIL438L or PHPE408K. Philosophy and Law deal with many of the same concepts but from different perspectives. This class explores ways in which the two fields interact, demonstrating how the use of philosophical tools can enhance understanding of many areas of law, from free speech, the rules of evidence, and criminal law to contracts, antitrust, and corporations. It will expose students to concrete legal issues that lawyers deal with on a day-to-day basis. At the same time, this cross-disciplinary class, which should not be confused with philosophy of law, will deepen the student's knowledge of critical ideas in epistemology, metaphysics, philosophy of language, and other philosophical subjects. Previous exposure to basic philosophical concepts would be helpful, though not essential.

0101	Kenneth Glazer	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 1313

PHPE408X **Advanced Topics in Philosophy, Politics, and Economics; Bayesian Epistemology**

Credits: 3 Grading Method: Regular, Pass-Fail

A sustained investigation of a topic at the intersection of philosophy, politics and economics.

Cross-listed with PHIL418X. Credit only granted for PHIL418X or PHPE408X. Epistemology is the philosophical study of knowledge and rational belief. Bayesian epistemology frames this study by centering not on full beliefs (like my belief that there is no chocolate on the moon) but instead on graded belief. This is for example what happens when we say that we are 80% confident that a certain party will win an election. Among the topics to be covered in the class are: the connection between degrees of belief and the mathematical theory of probability; the principles governing whether degrees of belief are rational; the principles whether agents respond appropriately to evidence; the role of degrees of belief in practical decision making. The approach in the class will be to present these topics without presupposing prior competence in epistemology.

0101	Fabrizio Cariani	Seats (Total: 24)
	MW 3:00pm - 4:15pm	TLF 1103

PHSC Public Health Science Fall 2022

PHSC300 **Foundations of Public Health**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be a major within the School of Public Health. Credit only granted for: SPHL100 or PHSC300.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

ESG1	Chandria Jones	Seats (Total: 35)
	Th 5:00pm - 7:30pm	BLD3 4211
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC321 **Public Health Science: Transferring Knowledge into Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a first year transfer student in UMD's Public Health Science program at Shady Grove.

A public health-focused transition course for first year transfer students in UMD's PHSC program at Shady Grove. Students will engage with current public health topics through primary sources, literature reviews, course discussions, analytic writing, and critical thinking. Academic success and professional development in the public health field will be emphasized. Students will also engage with faculty, staff, centers, and resources both at the University of Maryland, College Park and the Universities at Shady Grove.

ESG1	Kristen Cabrera	Seats (Total: 35)
	Tu 9:30am - 12:00pm	ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC389 **Independent Research Study in Public Health Science**

(Perm req)

Credits: 1-6 Grading Method: Regular

This independent research-based experience will provide the opportunity for students to work with individual research mentors in the area of Public Health Science. Students must identify a mentor prior to obtaining departmental permission.

0101	Nancy Smith	Seats (Total: 30)
	Contact instructor or department for details.	

ESG1	Nancy Smith	Seats (Total: 20)
	Contact instructor or department for details.	
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC399 **Public Health Science Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular

The Public Health Science internship will enable students to gain practical experience under conditions conducive to academic, research and professional development. The internship is a time-limited, supervised period of public health professional experience carried out in a related professional organization or research setting.

0101	Nancy Smith	Seats (Total: 30)
	Contact instructor or department for details.	
ESG1	Nancy Smith	Seats (Total: 20)
	Contact instructor or department for details.	
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC410 **Public Health Program Planning and Evaluation**

Credits: 3 Grading Method: Regular, Pass-Fail

Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC410 or SPHL410. Formerly: SPHL410.

Students will become familiar with the dynamics of public health program planning, and the basic process of identifying unmet needs. They will be able to identify different types of program evaluation, including needs assessment, formative research, process evaluation, impact assessment, and cost analysis.

0101	Nancy Smith	Seats (Total: 35)
	Th 2:00pm - 4:30pm	PHY 2106

PHSC412 **Food, Policy, and Public Health**

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed HLSA300 with a C- or higher. Recommended: NFSC100. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC412 or SPHL412. Formerly: SPHL412.

Broad overview of the impact of food and food policy on public health. Course covers topics such as access to food, food systems, influence of food policies on the individual, the cost of food, influences on food selection, food safety risks and responses, nutrition-related health challenges, and a comparison of US food/nutrition issues with those of other nations.

0101	Michael Bazaco Th 5:00pm - 7:30pm	Seats (Total: 35) ONLINE	
	Restricted to College Park students in the Public Health Science major.		

PHSC415 **Essentials of Public Health Biology: The Cell, The Individual, and Disease**

Credits: 3 Grading Method: Regular

Prerequisite: Minimum grade of C- in BSCI202. Recommended: BSCI223. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC415, SPHL415 or SPHL498J. Formerly: SPHL415 and SPHL498J.

Presents the basic scientific and biomedical concepts of modern public health problems and explores in depth mechanisms and models of the major categories of disease. The biologic principles presented are foundations to public health disease prevention, control, or management programs.

0101	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs W 2:00pm - 2:50pm	Seats (Total: 40) ESJ 0224 ONLINE PHY 1402	Discussion
0102	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs W 3:00pm - 3:50pm	Seats (Total: 40) ESJ 0224 ONLINE PHY 0405	Discussion
0103	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 12:30pm - 1:20pm	Seats (Total: 40) ESJ 0224 ONLINE SPH 1303	Discussion
0104	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 2:00pm - 2:50pm	Seats (Total: 40) ESJ 0224 ONLINE SPH 1303	Discussion
0105	Jessica O'Hara W 1:00pm - 1:50pm Class time/details on ELMs Th 3:00pm - 3:50pm	Seats (Total: 40) ESJ 0224 ONLINE SPH 1303	Discussion
ESG1	Mark Scheckelhoff M 5:00pm - 7:30pm	Seats (Total: 35) BLD3 4211	
	Restricted to Shady Grove students in the Public Health Science major.		

PHSC420 **Vaccines and Immunology**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Minimum grade of C- in BSCI202. Recommended: CHEM231. Restriction: Must have earned a minimum of 60 credits. And must be in Public Health Science program; or permission of instructor.

An exploration of immunology and vaccines through a public health lens. We will examine the cells, systems, and molecules that comprise the human immune system and defend your body against disease. In addition, we will discuss the strategies used during vaccine development including the history and future of vaccination and how increased understanding of the immune system has allowed scientists to improve and refine the process. Finally we will examine the current social and political situation surrounding vaccination and the roles and responsibility of public health practitioners.

0101	Jennifer German	Seats (Total: 35)
	TuTh 9:30am - 10:45am	BPS 1236

PHSC430 **Public Health in the City: Perspectives on Health in the Urban Environment**

Credits: 3 Grading Method: Regular General Education: DSHS, DVUP, SCIS

Prerequisite: Minimum grade of C- in BSCI202 and MIEH300. Restriction: Must be in Public Health Science program; and junior standing or higher. Credit only granted for: PHSC430 or SPHL498G. Formerly: SPHL498G.

Exposure to issues related to city habitation and the health of the public, including how the urban environment impacts the lives and health of city dwellers, including discussion of the social determinants of health. Students are encouraged to think about urban health and policy, and to question the current state of urban public health. Issues of race, class, and equality will be discussed throughout the course as they relate to each of these topics.

ESG1	Kendall Bustad	Seats (Total: 35)
	Class time/details on ELMs	ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	

PHSC440 **Public Health Nutrition**

Credits: 3 Grading Method: Regular

Prerequisite: A minimum of C- in BSCI170, BSCI171, CHEM131, CHEM132 and EPIB301. Restriction: Must be in Public Health Science program. Credit only granted for: PHSC440 or NFSC498L.

Engages students in conceptual thinking about the relationship between public health and nutritional health. Students will analyze and interpret "A Framework for Public Health Nutrition." Students will identify determinants of nutritional health, assess nutritional health in individuals and populations, develop strategies to mitigate these issues, and analyze and evaluate public health nutrition policies.

0101	Kendall Bustad Class time/details on ELMs	Seats (Total: 35) ONLINE
	Restricted to Public Health Science at College Park.	

PHSC497 **Public Health Science Capstone**

Credits: 3 Grading Method: Regular General Education: DSSP

Prerequisite: Must have completed the professional writing requirement with a C- or higher; and minimum grade of C- in MIEH400. Restriction: Must have earned a minimum of 100 credits; and must be in Public Health Science program; and must be in the final semester of undergraduate study. Credit only granted for: SPHL498F or PHSC497. Formerly: SPHL498F.

The capstone course is the culminating experience for Public Health Science students and must be taken only in the final semester of study. The Public Health Science capstone course is designed to challenge students to integrate the five core areas of public health in investigating, researching and addressing public health issues. Throughout the semester, students will be required to evaluate, analyze and synthesize scholarly works as they research and propose solutions to a variety of public health issues. By the conclusion of this research based course, students will understand how the various public health perspectives can combine in addressing and informing public health practices.

0101	Kevin Glasz M 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
0301	Lakeshia Watson Tu 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
0501	Kendall Bustad W 4:00pm - 6:30pm	Seats (Total: 20) SPH 0116B
0601	Aysha Jawed W 4:00pm - 6:30pm	Seats (Total: 20) ONLINE
ESG1	Adam Binkley Tu 5:00pm - 7:30pm	Seats (Total: 20) ONLINE
	Restricted to Shady Grove students in the Public Health Science major.	

PHYS Physics Fall 2022

PHYS102 **Physics of Music**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with PHYS103)

Prerequisite: Must have math eligibility of MATH107 or higher. Credit only granted for: PHYS102 and PHYS499C. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS103.

A study of the physical basis of sound, acoustical properties of sound, the human ear and voice, reproduction of sound, electronic music, acoustical properties of auditoriums, and other selected topics.

0101	Matt Severson TuTh 9:30am - 10:45am	Seats (Total: 150) PHY 1410	

PHYS103 **Physics of Music Laboratory**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Optional laboratory to accompany PHYS 102. Laboratory experiments, including the velocity of sound, sound quality and wave shape, traveling and standing waves, fourier synthesis and analysis, musical synthesizer, psychoacoustics, and audio equipment.

0101	Andris Skuja Th 11:00am - 12:50pm	Seats (Total: 24) PHY 3220	Lab
0301	Andris Skuja Th 3:30pm - 5:20pm	Seats (Total: 24) PHY 3220	Lab
0401	Andris Skuja F 10:00am - 11:50am *Recommended for First-Year students.*	Seats (Total: 24) PHY 3220	Lab
0501	Andris Skuja F 12:00pm - 1:50pm	Seats (Total: 24) PHY 3220	Lab
0701	Andris Skuja W 3:00pm - 5:00pm	Seats (Total: 24) PHY 3220	Lab
0801	Andris Skuja W 1:00pm - 2:50pm	Seats (Total: 24) PHY 3220	Lab

PHYS105 **A Global Challenge: Energy and Climate Change**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS, SCIS

This marquee course will consider the global energy crisis from a scientific perspective. Topics include basic laws of energy and thermodynamics, their effects on energy production and distribution, greenhouse gas, global warming and policy options for decision makers. This course is aimed at the non-science major.

0101	Jordan Goodman MW 1:00pm - 1:50pm Th 10:00am - 10:50am	Seats (Total: 25) CHE 2110 PHY 0405	Discussion
0102	Jordan Goodman MW 1:00pm - 1:50pm Th 11:00am - 11:50am	Seats (Total: 25) CHE 2110 PHY 0405	Discussion
0103	Jordan Goodman MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 25) CHE 2110 PHY 2208	Discussion
0104	Jordan Goodman MW 1:00pm - 1:50pm F 2:00pm - 2:50pm	Seats (Total: 25) CHE 2110 PHY 2208	Discussion

PHYS111 **Physics in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS

A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

Contact department for information to register for this course.

PHYS115 **Inquiry into Physics**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Recommended: High School Physics. Restriction: Must not have completed PHYS117; and must be in one of the following programs (Elementary Education; Early Childhood Education; Middle School Education). Credit only granted for: PHYS115 or PHYS117.

Intended for students majoring in neither the physical nor the biological sciences. Use of laboratory-based and inquiry-based methods to study some of the basic ideas of physical sciences.

0101	Laura Lising MWF 1:00pm - 2:50pm	Seats (Total: 20) PHY 3316	Lab
0201	Arpita Upadhyaya MWF 9:00am - 10:50am	Seats (Total: 20) PHY 3316	Lab

PHYS121 **Fundamentals of Physics I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: MATH113 or MATH115. Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

Physics clinic, PHY 1214, MTWHF 11,1. If purchasing used books additional software may be required. Students must pay a $50.00 laboratory materials fee.

0201	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	M 10:00am - 11:50am	PHY 3306	Lab
	M 9:00am - 9:50am	PHY 1219	Discussion
0202	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	M 2:00pm - 3:50pm	PHY 3306	Lab
	M 1:00pm - 1:50pm	PHY 0405	Discussion
0203	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	Tu 9:00am - 10:50am	PHY 3306	Lab
	Tu 8:00am - 8:50am	PHY 1219	Discussion
0204	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	Tu 3:00pm - 4:50pm	PHY 3306	Lab
	Tu 2:00pm - 2:50pm	PHY 0405	Discussion
0205	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	W 5:00pm - 6:50pm	PHY 3306	Lab
	W 4:00pm - 4:50pm	PHY 1219	Discussion
0206	Negar Heidarian Boroujeni	Seats (Total: 28)	
	MWF 12:00pm - 12:50pm	PHY 1412	
	W 3:00pm - 4:50pm	PHY 3306	Lab
	W 2:00pm - 2:50pm	PHY 0405	Discussion

0401	Negar Heidarian Boroujeni	Seats (Total: 28)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 6:30pm - 7:20pm	PHY 1410	
	M 8:00pm - 9:50pm	PHY 3306	Lab
	W 6:30pm - 7:20pm	PHY 1219	Discussion
0402	Negar Heidarian Boroujeni	Seats (Total: 28)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 6:30pm - 7:20pm	PHY 1410	
	W 7:30pm - 9:20pm	PHY 3306	Lab
	M 6:30pm - 7:20pm	PHY 1219	Discussion
0403	Negar Heidarian Boroujeni	Seats (Total: 28)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 6:30pm - 7:20pm	PHY 1410	
	Tu 5:00pm - 6:50pm	PHY 3306	Lab
	Th 7:30pm - 8:20pm	PHY 1219	Discussion
0405	Negar Heidarian Boroujeni	Seats (Total: 13)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 6:30pm - 7:20pm	PHY 1410	
	Th 7:30pm - 9:20pm	PHY 3306	Lab
	Tu 6:00pm - 6:50pm	PHY 0405	Discussion
SEF1	Negar Heidarian Boroujeni	Seats (Total: 15)	
	Tu 7:00pm - 8:50pm	PHY 1410	
	Th 6:30pm - 7:20pm	PHY 1410	
	Th 7:30pm - 9:20pm	PHY 3306	Lab
	Tu 6:00pm - 6:50pm	PHY 0405	Discussion
	Must be in the Science in the Evening (SIE) program.		

PHYS122 **Fundamentals of Physics II**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: PL | General Education: DSNL

Prerequisite: PHYS121; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

Physics clinic, PHY 1214, MTWHF 12,2. If purchasing used books additional software may be required. Students must pay a $50.00 laboratory materials fee.

0101	Negar Heidarian Boroujeni	Seats (Total: 24)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	M 4:00pm - 5:50pm	PHY 3314	Lab
	M 3:00pm - 3:50pm	PHY 1402	Discussion
0102	Negar Heidarian Boroujeni	Seats (Total: 24)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	Tu 10:00am - 11:50am	PHY 3314	Lab
	Tu 9:00am - 9:50am	PHY 0405	Discussion
0105	Negar Heidarian Boroujeni	Seats (Total: 24)	
	MWF 1:00pm - 1:50pm	PHY 1410	
	Tu 4:00pm - 5:50pm	PHY 3314	Lab
	Th 4:00pm - 4:50pm	PHY 1219	Discussion
0401	Negar Heidarian Boroujeni	Seats (Total: 15)	
	MW 6:00pm - 7:15pm	PHY 1201	
	M 7:30pm - 9:20pm	PHY 3314	Lab
	W 7:30pm - 8:20pm	PHY 0405	Discussion
0402	Negar Heidarian Boroujeni	Seats (Total: 24)	
	MW 6:00pm - 7:15pm	PHY 1201	
	W 7:30pm - 9:20pm	PHY 3314	Lab
	M 7:30pm - 8:20pm	PHY 1219	Discussion
SEF1	Negar Heidarian Boroujeni	Seats (Total: 9)	
	MW 6:00pm - 7:15pm	PHY 1201	
	M 7:30pm - 9:20pm	PHY 3314	Lab
	W 7:30pm - 8:20pm	PHY 0405	Discussion
	Must be in the Science in the Evening (SIE) program.		

PHYS131 **Fundamentals of Physics for Life Sciences I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131; and (MATH136 or MATH140); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Credit only granted for: PHYS121, PHYS131, or PHYS331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

Students must pay a $50.00 laboratory materials fee.

0101	Matt Severson MWF 10:00am - 10:50am Tu 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0102	Matt Severson MWF 10:00am - 10:50am Th 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0103	Matt Severson MWF 10:00am - 10:50am Tu 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0104	Matt Severson MWF 10:00am - 10:50am Th 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0105	Matt Severson MWF 10:00am - 10:50am Tu 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0106	Matt Severson MWF 10:00am - 10:50am Th 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0107	Matt Severson MWF 10:00am - 10:50am M 6:00pm - 8:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0108	Matt Severson MWF 10:00am - 10:50am W 6:00pm - 8:50pm	Seats (Total: 24) PHY 1412 PHY 3310	 Lab
0201	David Buehrle TuTh 2:00pm - 3:15pm M 9:00am - 11:50am	Seats (Total: 24) EGR 1202 PHY 3310	 Lab
0202	David Buehrle TuTh 2:00pm - 3:15pm W 9:00am - 11:50am	Seats (Total: 24) EGR 1202 PHY 3310	 Lab

0203	David Buehrle TuTh 2:00pm - 3:15pm M 12:00pm - 2:50pm	Seats (Total: 24) EGR 1202 PHY 3310	 Lab
0204	David Buehrle TuTh 2:00pm - 3:15pm W 12:00pm - 2:50pm	Seats (Total: 24) EGR 1202 PHY 3310	 Lab
0205	David Buehrle TuTh 2:00pm - 3:15pm M 3:00pm - 5:50pm	Seats (Total: 24) EGR 1202 PHY 3310	 Lab
0206	David Buehrle TuTh 2:00pm - 3:15pm W 3:00pm - 5:50pm	Seats (Total: 24) EGR 1202 PHY 3310	 Lab
0207	David Buehrle TuTh 2:00pm - 3:15pm Tu 6:00pm - 8:50pm	Seats (Total: 24) EGR 1202 PHY 3310	 Lab

PHYS132 **Fundamentals of Physics for Life Sciences II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS131; or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS122, PHYS132, or PHYS332.

The second part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic statistical physics, electricity and magnetism, and optics done in authentic biological contexts.

Students must pay a $50.00 laboratory materials fee.

0101	David Buehrle MWF 12:00pm - 12:50pm Tu 9:00am - 11:50am	Seats (Total: 24) JMZ 0220 PHY 3312	 Lab
0103	David Buehrle MWF 12:00pm - 12:50pm Tu 12:00pm - 2:50pm	Seats (Total: 24) JMZ 0220 PHY 3312	 Lab
0105	David Buehrle MWF 12:00pm - 12:50pm M 3:00pm - 5:50pm	Seats (Total: 24) JMZ 0220 PHY 3312	 Lab

0106	David Buehrle MWF 12:00pm - 12:50pm Tu 3:00pm - 5:50pm	Seats (Total: 24) JMZ 0220 PHY 3312	Lab
0107	David Buehrle MWF 12:00pm - 12:50pm M 6:00pm - 8:50pm	Seats (Total: 24) JMZ 0220 PHY 3312	Lab
0201	David Buehrle TuTh 12:30pm - 1:45pm M 9:00am - 11:50am	Seats (Total: 24) PHY 1412 PHY 3312	Lab
0203	David Buehrle TuTh 12:30pm - 1:45pm M 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3312	Lab
0204	David Buehrle TuTh 12:30pm - 1:45pm W 12:00pm - 2:50pm	Seats (Total: 24) PHY 1412 PHY 3312	Lab
0205	David Buehrle TuTh 12:30pm - 1:45pm W 3:00pm - 5:50pm	Seats (Total: 24) PHY 1412 PHY 3312	Lab

PHYS161 **General Physics: Mechanics and Particle Dynamics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: PS | General Education: DSNS

Prerequisite: Must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

Physics clinic, PHY 1214, MTWHF 11, 2. If purchasing used books additional software may be required.

0101	David Buehrle MWF 3:00pm - 3:50pm Tu 3:00pm - 3:50pm	Seats (Total: 30) PHY 1410 PHY 1402	Discussion
0104	David Buehrle MWF 3:00pm - 3:50pm F 11:00am - 11:50am	Seats (Total: 30) PHY 1410 PHY 1402	Discussion

0201	Hailu Gebremariam TuTh 11:00am - 12:15pm Th 8:00am - 8:50am	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0202	Hailu Gebremariam TuTh 11:00am - 12:15pm Tu 2:00pm - 2:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0203	Hailu Gebremariam TuTh 11:00am - 12:15pm W 3:00pm - 3:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0204	Hailu Gebremariam TuTh 11:00am - 12:15pm M 4:00pm - 4:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0301	Hailu Gebremariam MWF 10:00am - 10:50am Th 3:00pm - 3:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0302	Hailu Gebremariam MWF 10:00am - 10:50am Tu 4:00pm - 4:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0303	Hailu Gebremariam MWF 10:00am - 10:50am W 12:00pm - 12:50pm	Seats (Total: 30) PHY 1410 PHY 1402	 Discussion
0304	Hailu Gebremariam MWF 10:00am - 10:50am W 3:00pm - 3:50pm	Seats (Total: 30) PHY 1410 PHY 4221	 Discussion

PHYS165 **Introduction to Programming in the Physical Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS171, PHYS141, or PHYS161; or must have scored 3 or higher on AP PHYS exam.

Introduction to programming using examples in the physical sciences. Provides instruction in the techniques of upper-level languages such as Fortran, C, and Pascal, as well as an introduction to the object oriented programming techniques used in Python, C++ and Java. Includes strong component of visualization and graphing.

0101	Gregory Sullivan TuTh 9:30am - 10:45am	Seats (Total: 38) PHY 4221

PHYS170 **Professional Physics Seminar**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Corequisite: MATH140. Restriction: Must be in Physics program; or must be in Physics-Education program; or permission of instructor.

Provides a look at some of the major developments of current interest in physics research and discusses the activities physicists undertake in research, education, industry, government, and other areas of the economy.

0101	Thomas Gleason, Donna Hammer W 12:00pm - 12:50pm	Seats (Total: 35) PHY 4221

PHYS171 **Introductory Physics: Mechanics and Relativity**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. And must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta, temperature and pressure, ideal gas law, and special relativity.

Jointly offered with PHYS171H.

0201	Christopher Palmer MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 54) PHY 1201 IRB 2207

PHYS171H **Introductory Physics: Mechanics and Relativity**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: PS General Education: DSNS

Prerequisite: (MATH140; and a high school physics course); or permission of CMNS-Physics department. And must have completed or be concurrently enrolled in MATH141. Credit only granted for: PHYS141, PHYS161, or PHYS171.

First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta, temperature and pressure, ideal gas law, and special relativity.

Jointly offered with PHYS171.

0201	Christopher Palmer MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 54) PHY 1201 IRB 2207	

PHYS172 **Succeeding in Physics: Applications, Resources and Concepts**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Corequisite: PHYS171. Restriction: Permission of CMNS-Physics department.

Supplemental instruction and support for students taking PHYS171, especially for students with limited high school physics preparation, or who will benefit from extra review and practice of relevant mathematics and physics concepts and skills.

0101	Peter Shawhan Tu 9:30am - 10:45am	Seats (Total: 15) PHY 1219	

PHYS235 **The Manhattan Project**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSNS, SCIS

Credit only granted for: PHYS199M or PHYS235. Formerly: PHYS199M. Additional information: This course has no prerequisites. However, the course will use mathematics extensively at the level up to and including standard high school algebra II. Students will need to be comfortable applying mathematics at this level.

Introduction to some critical ideas of nuclear physics and a review of some key historical developments starting at the end of the 19th century. Chronological development of nuclear physics from the discovery of radioactivity by Becquerel in 1896 through to the discovery of fission in Germany in 1938 followed by an examination of the programs to develop nuclear weapons in the United States, Britain and Germany. Extensive study of political, ethical, scientific, military, social, and economic issues surrounding the Manhattan Project.

0101	Sylvester Gates MW 4:00pm - 4:50pm M 11:00am - 11:50am	Seats (Total: 25) PHY 1410 PHY 4221	Discussion
0102	Sylvester Gates MW 4:00pm - 4:50pm W 11:00am - 11:50am	Seats (Total: 25) PHY 1410 PHY 4221	Discussion
0103	Sylvester Gates MW 4:00pm - 4:50pm Tu 2:00pm - 2:50pm	Seats (Total: 25) PHY 1410 PHY 4221	Discussion

0104	Sylvester Gates MW 4:00pm - 4:50pm Th 2:00pm - 2:50pm	Seats (Total: 25) PHY 1410 PHY 4221	Discussion

PHYS260 **General Physics: Vibration, Waves, Heat, Electricity and Magnetism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS261)

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Vibrations, waves, fluids; heat, kinetic theory, and thermodynamics; electrostatics, circuits, and magnetism. PHYS260 and PHYS261 must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Andris Skuja MW 4:30pm - 5:45pm Tu 11:00am - 11:50am	Seats (Total: 31) PHY 1412 PHY 0405	Discussion
0102	Andris Skuja MW 4:30pm - 5:45pm W 10:00am - 10:50am	Seats (Total: 31) PHY 1412 PHY 0405	Discussion
0104	Andris Skuja MW 4:30pm - 5:45pm W 9:00am - 9:50am	Seats (Total: 30) PHY 1412 PHY 0405	Discussion
0105	Andris Skuja MW 4:30pm - 5:45pm F 3:00pm - 3:50pm	Seats (Total: 30) PHY 1412 PHY 0405	Discussion
0201	Hailu Gebremariam MW 3:00pm - 4:15pm Tu 8:00am - 8:50am	Seats (Total: 34) PHY 1412 PHY 0405	Discussion
0202	Hailu Gebremariam MW 3:00pm - 4:15pm M 9:00am - 9:50am	Seats (Total: 34) PHY 1412 PHY 0405	Discussion
0203	Hailu Gebremariam MW 3:00pm - 4:15pm Tu 11:00am - 11:50am	Seats (Total: 34) PHY 1412 PHY 4221	Discussion

0204	Hailu Gebremariam MW 3:00pm - 4:15pm F 2:00pm - 2:50pm	Seats (Total: 34) PHY 1412 PHY 0405	 Discussion
0205	Hailu Gebremariam MW 3:00pm - 4:15pm W 12:00pm - 12:50pm	Seats (Total: 34) PHY 1412 PHY 0405	 Discussion
0206	Hailu Gebremariam MW 3:00pm - 4:15pm M 4:30pm - 5:20pm	Seats (Total: 34) PHY 1412 PHY 1204	 Discussion
0207	Hailu Gebremariam MW 3:00pm - 4:15pm W 4:30pm - 5:20pm	Seats (Total: 34) PHY 1412 PHY 1204	 Discussion
0301	Erin Sohr TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 32) ONLINE PHY 0405	 Discussion
0302	Erin Sohr TuTh 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 32) ONLINE PHY 0405	 Discussion
0303	Erin Sohr TuTh 2:00pm - 3:15pm M 2:00pm - 2:50pm	Seats (Total: 32) ONLINE PHY 4221	 Discussion
0304	Erin Sohr TuTh 2:00pm - 3:15pm F 1:00pm - 1:50pm	Seats (Total: 32) ONLINE PHY 0405	 Discussion
0305	Erin Sohr TuTh 2:00pm - 3:15pm Tu 1:00pm - 1:50pm	Seats (Total: 32) ONLINE PHY 0405	 Discussion
0501	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 9:00am - 9:50am	Seats (Total: 35) PHY 1412 PHY 0405	 Discussion

0502	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 12:00pm - 12:50pm	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0503	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 10:00am - 10:50am	Seats (Total: 35) PHY 1412 PHY 0405	Discussion
0504	Hailu Gebremariam TuTh 3:30pm - 4:45pm W 10:00am - 10:50am	Seats (Total: 35) PHY 1412 PHY 4221	Discussion
0505	Hailu Gebremariam TuTh 3:30pm - 4:45pm F 2:00pm - 2:50pm	Seats (Total: 35) PHY 1412 PHY 4221	Discussion

PHYS260H **General Physics: Vibration, Waves, Heat, Electricity and Magnetism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS261)

Prerequisite: PHYS161 and MATH141. Corequisite: PHYS261. Credit only granted for: PHYS142, PHYS260, or PHYS272.

Second semester of a three-semester calculus-based general physics course. Vibrations, waves, fluids; heat, kinetic theory, and thermodynamics; electrostatics, circuits, and magnetism. PHYS260 and PHYS261 must be taken in the same semester.

If purchasing used books additional software may be required.

0301	Erin Sohr TuTh 2:00pm - 3:15pm M 12:00pm - 12:50pm	Seats (Total: 3) ONLINE PHY 0405	Discussion

PHYS261 **General Physics: Mechanics, Vibrations, Waves, Heat (Laboratory)**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS161.

Lab includes experiments on mechanics, vibrations, waves, and heat. Engineering majors are expected to take PHYS260 and PHYS261 in the same semester.

Students must pay a $50.00 laboratory materials fee.

0202	Matt Severson Tu 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0204	Matt Severson Th 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab
0205	Matt Severson M 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0206	Matt Severson Tu 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0207	Matt Severson W 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0208	Matt Severson Th 11:30am - 1:50pm	Seats (Total: 36) PHY 3219	Lab
0209	Matt Severson M 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0210	Matt Severson Tu 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0212	Matt Severson Th 2:00pm - 4:20pm	Seats (Total: 36) PHY 3219	Lab
0213	Matt Severson M 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0214	Matt Severson Tu 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0215	Matt Severson W 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0216	Matt Severson Th 4:30pm - 6:50pm	Seats (Total: 36) PHY 3219	Lab
0218	Matt Severson Tu 7:00pm - 9:20pm	Seats (Total: 36) PHY 3219	Lab

0219	Matt Severson W 7:00pm - 9:20pm	Seats (Total: 36) PHY 3219	Lab
0221	Matt Severson F 9:00am - 11:20am	Seats (Total: 36) PHY 3219	Lab

PHYS270 **General Physics: Electrodynamics, Light, Relativity and Modern Physics**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS271)

Prerequisite: PHYS261, MATH241, and PHYS260. Corequisite: PHYS271.

Third semester of a three-semester calculus-based general physics course. Electrodynamics, Maxwell's equations and electromagnetic waves, geometrical optics, interference, diffraction, special theory of relativity, and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

If purchasing used books additional software may be required.

0101	Eun-Suk Seo TuTh 5:00pm - 6:15pm Th 2:00pm - 2:50pm	Seats (Total: 33) PHY 1412 PHY 0405	Discussion
0102	Eun-Suk Seo TuTh 5:00pm - 6:15pm Th 4:00pm - 4:50pm	Seats (Total: 33) PHY 1412 PHY 4221	Discussion
0103	Eun-Suk Seo TuTh 5:00pm - 6:15pm W 9:00am - 9:50am	Seats (Total: 33) PHY 1412 PHY 1402	Discussion
0301	Drew Baden MWF 12:00pm - 12:50pm W 1:00pm - 1:50pm	Seats (Total: 34) PHY 1410 PHY 4221	Discussion
0302	Drew Baden MWF 12:00pm - 12:50pm M 2:00pm - 2:50pm	Seats (Total: 34) PHY 1410 PHY 0405	Discussion
0303	Drew Baden MWF 12:00pm - 12:50pm M 1:00pm - 1:50pm	Seats (Total: 34) PHY 1410 PHY 4221	Discussion

0304	Drew Baden MWF 12:00pm - 12:50pm F 3:00pm - 3:50pm	Seats (Total: 34) PHY 1410 PHY 4221	Discussion

PHYS271 **General Physics: Electrodynamics, Light, Relativity and Modern Physics (Laboratory)**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS261. Corequisite: PHYS270.

Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester.

Students must pay a $50.00 laboratory materials fee.

0102	Matt Severson M 3:00pm - 5:50pm	Seats (Total: 36) PHY 3213	Lab
0103	Matt Severson M 6:00pm - 8:50pm	Seats (Total: 36) PHY 3213	Lab
0104	Matt Severson W 4:00pm - 6:50pm	Seats (Total: 36) PHY 3213	Lab
0105	Matt Severson Tu 10:00am - 12:50pm	Seats (Total: 36) PHY 3213	Lab
0106	Matt Severson Tu 1:00pm - 3:50pm	Seats (Total: 36) PHY 3213	Lab
0117	Matt Severson Th 11:00am - 1:50pm	Seats (Total: 36) PHY 3213	Lab
0118	Matt Severson Th 2:00pm - 4:50pm	Seats (Total: 36) PHY 3213	Lab

PHYS272 **Introductory Physics: Fields**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

Jointly offered with PHYS 272H.

0101	Rajarshi Roy TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1410 PHY 1410
0201	Michelle Girvan TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 30) HBK 0115 HBK 0115

PHYS272H **Introductory Physics: Fields**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNL (if taken with PHYS275)

Prerequisite: PHYS161 or PHYS171; and MATH141; and must have completed or be concurrently enrolled in MATH241. Credit only granted for: PHYS142, PHYS260, or PHYS272. Additional information: CORE Distributive Studies Physical Sciences Laboratory Course only when taken concurrently with PHYS275.

Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials, simple circuits, Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

For general honors students only. Jointly offered with PHYS 272.

0101	Rajarshi Roy TuTh 2:00pm - 3:15pm F 2:00pm - 2:50pm	Seats (Total: 30) PHY 1410 PHY 1410
0201	Michelle Girvan TuTh 12:30pm - 1:45pm M 12:00pm - 12:50pm	Seats (Total: 30) HBK 0115 HBK 0115

PHYS273 **Introductory Physics: Waves**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

Jointly offered with PHYS 273H.

0101	Abolhassan Jawahery	Seats (Total: 62)	
	TuTh 12:30pm - 1:45pm	PHY 1201	
	M 2:00pm - 2:50pm	PHY 1201	

PHYS273H **Introductory Physics: Waves**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272. Corequisite: PHYS274.

Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

For general honors students only. Jointly offered with PHYS 273.

0101	Abolhassan Jawahery	Seats (Total: 62)	
	TuTh 12:30pm - 1:45pm	PHY 1201	
	M 2:00pm - 2:50pm	PHY 1201	

PHYS274 **Mathematical Methods for Physics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH241 and PHYS272.

A first course in mathematical methods for physics. Topics include linear algebra, curvilinear coordinates and vector analysis.

0101	Anson Hook	Seats (Total: 50)	
	MWF 12:00pm - 12:50pm	PHY 1201	

PHYS275 **Experimental Physics I: Mechanics and Heat**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS161 or PHYS171. Additional information: CORE Physical Science Lab (PL) Course only when taken concurrently with PHYS272.

Methods and rationale of experimental physics. Intended for physics majors and science and engineering students who desire a more rigorous approach. Experiments chosen from the areas of mechanics (from PHYS171), gas laws, and heats. Theory and applications of error analysis.

0101	Wendell Hill	Seats (Total: 12)	
	M 2:00pm - 5:50pm	PHY 3104	Lab
0201	Daniel Lathrop	Seats (Total: 13)	
	W 2:00pm - 5:50pm	PHY 3104	Lab

0301	Wendell Hill Tu 2:00pm - 5:50pm	Seats (Total: 12) PHY 3104	Lab
0401	Daniel Lathrop Th 2:00pm - 5:50pm	Seats (Total: 13) PHY 3104	Lab
0501	Anwar Bhatti TuTh 9:00am - 10:50am	Seats (Total: 12) PHY 3104	Lab

PHYS276 **Experimental Physics II: Electricity and Magnetism**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS272 and PHYS275.

Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.

0101	Kara Hoffman M 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	Lab
0201	Kara Hoffman Tu 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	Lab
0301	Kara Hoffman Th 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	Lab
0401	Kara Hoffman W 2:00pm - 5:50pm	Seats (Total: 12) PHY 3203	Lab

PHYS299 **Special Problems in Physics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS299R **Special Problems in Physics; General Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

Contact department for information to register for this course.

PHYS331 Physics for Life Sciences I

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131; and (MATH131 or MATH136); and (BSCI160 and BSCI161; or BSCI106); and (BSCI170 and BSCI171; or BSCI105). Or students who have taken courses with comparable content may contact the department. Credit only granted for: PHYS121, PHYS131 or PHYS 331.

The first part of a two-semester course in general physics specifically oriented towards applications relevant for students in biology and pre-medical programs. The course covers basic mechanics including forces and energy, properties of matter, and thermodynamics done in authentic biological contexts.

ESG1	Lorin Milescu, Nidhi Verma	Seats (Total: 24)	
	Tu 9:30am - 10:45am	ONLINE	
	Th 12:00pm - 1:15pm	ONLINE	
	M 2:00pm - 5:00pm	BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		
ESG2	Nidhi Verma, Lorin Milescu	Seats (Total: 24)	
	Tu 9:30am - 10:45am	ONLINE	
	Th 12:00pm - 1:15pm	ONLINE	
	W 2:00pm - 5:00pm	BLD4 5322	Lab
	Registration is restricted to Biological Sciences - Shady Grove majors.		

PHYS371 Modern Physics

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274. Corequisite: PHYS373. Credit only granted for: PHYS371 or PHYS420. Additional information: This course is intended primarily for physics and astronomy majors.

Introduces students to special relativity, thermodynamics and quantum mechanics at an intermediate level.

0101	Bei Lok Hu	Seats (Total: 60)	
	MW 11:00am - 12:15pm	IRB 1116	

PHYS373 Mathematical Methods for Physics II

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS273 and PHYS274.

A second course in mathematical methods for physics. Topics include introduction to ordinary differential equations, partial differential equations, and complex analysis.

0101	Kaustubh Agashe TuTh 12:30pm - 1:45pm	Seats (Total: 70) PHY 1410

PHYS375 **Experimental Physics III: Electromagnetic Waves, Optics and Modern Physics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS276 and PHYS273.

Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

Besides lab hours scheduled below, additional required lab time will be arranged.

0101	Simone-Gunde Kulin M 2:00pm - 2:50pm M 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab
0102	Min Ouyang M 2:00pm - 2:50pm W 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab
0103	Simone-Gunde Kulin M 2:00pm - 2:50pm Tu 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab
0104	Min Ouyang M 2:00pm - 2:50pm Th 3:00pm - 5:50pm	Seats (Total: 14) PHY 1410 PHY 3115	 Lab

PHYS386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Contact department for information to register for this course.

PHYS389 **Undergraduate Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

Contact department for information to register for this course.

PHYS398 **Independent Studies Seminar**

(Perm req)

Credits: 1-16

Grading Method: Regular, Pass-Fail, Audit

Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

Contact department for information to register for this course.

PHYS399 **Special Problems in Physics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399C **Special Problems in Physics; Physics STEM Seminar**

Credits: 1

Grading Method: Regular

Selected advanced experiments. (Will be given with sufficient demand.)

Contact department for information to register for this course.

PHYS399D **Special Problems in Physics; Physics STEM Seminar II**

(Perm req)

Credits: 2

Grading Method: Regular

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Thomas Gleason, Donna Hammer	Seats (Total: 8)
	F 9:00am - 9:50am	ONLINE
	Class time/details on ELMs	ONLINE

PHYS399E **Special Problems in Physics; Physics STEM Seminar III**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Selected advanced experiments. (Will be given with sufficient demand.)

0101	Donna Hammer, Thomas Gleason	Seats (Total: 12)
	Meets September 14, 2022 - December 12, 2022	
	W 1:30pm - 2:45pm	Location: TBA

PHYS401 **Quantum Physics I**

Credits: 4

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 and PHYS373. Formerly: PHYS421.

Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

0101	Steven Rolston, Chandra Turpen	Seats (Total: 55)	
	MWF 10:00am - 10:50am	PHY 1201	
	W 11:00am - 11:50am	PHY 1201	

PHYS402 **Quantum Physics II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS401.

Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

0101	Steven Anlage	Seats (Total: 49)	
	MW 10:00am - 10:50am	PHY 1402	
	MW 11:00am - 11:50am	PHY 1402	

PHYS404 **Introduction to Statistical Thermodynamics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS371 or PHYS420.

Introduction to basic concepts in thermodynamics and statistical mechanics.

0101	Christopher Lobb	Seats (Total: 54)
	MWF 9:00am - 9:50am	PHY 4221

PHYS405 **Advanced Experiments**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS375. Restriction: Must be in a major within CMNS-Physics department.

Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.

0101	Simone-Gunde Kulin	Seats (Total: 20)	
	W 12:00pm - 12:50pm	PHY 2211	Lab
	TBA	PHY 3112	Lab

PHYS407 **Undergraduate Experimental Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: PHYS499 and PHYS375; and permission of CMNS-Physics department. Restriction: Must be in a major within CMNS-Physics department; and senior standing.

Students develop and complete an independent, experimental research project with a professor in the Physics Department. The project should be a continuation of work done in PHYS499A. To obtain permission, students must submit a proposal describing the experimental work to be completed and this proposal must be approved by their faculty mentor, the associate chair for undergraduate education and the chair of the laboratory committee. Students must maintain a lab notebook, give an oral presentation and complete a written report on their research that includes data and error analysis.

0101	Carter Hall	Seats (Total: 10)
	Contact instructor or department for details.	

PHYS410 **Classical Mechanics**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Theoretical foundations of mechanics with extensive application of the methods. Various mathematical tools of theoretical physics.

0101	Peter Shawhan	Seats (Total: 55)
	TuTh 11:00am - 12:15pm	PHY 1204
	F 11:00am - 11:50am	PHY 1204

PHYS411 **Intermediate Electricity and Magnetism**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373.

Foundations of electromagnetic theory, with extensive applications of the methods. Thorough treatment of wave properties of solutions of Maxwell's equations.

0101	Xiangdong Ji	Seats (Total: 54)
	TuTh 12:30pm - 1:45pm	PHY 4221
	F 12:00pm - 12:50pm	PHY 4221

PHYS412 **Intermediate Electricity and Magnetism I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS373. Credit only granted for: PHYS412 or PHYS411.

The first semester of a two semester course with emphasis on electrostatics and magnetostatics, boundary value problems, fields in matter, electrodynamics, and Maxwell's equations.

Prerequisite: PHYS373. Course is not open to students who have completed PHYS411. The first semester of a two semester course with emphasis on electrostatics and magnetostatics, boundary value problems, fields in matter, electrodynamics, and Maxwell's equations.

0101	Paulo Bedaque	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	CHM 1224
	F 1:00pm - 1:50pm	CHM 1224

PHYS420 **Principles of Modern Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH246. And PHYS271 and PHYS270; or PHYS273. Credit only granted for: PHYS371 or PHYS420.

A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.

0101	Bei Lok Hu	Seats (Total: 40)
	MW 3:30pm - 4:45pm	PLS 1140

PHYS431 **Introduction to Solid State Physics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS271, PHYS270, and MATH241. Restriction: Junior standing or higher; and must be in the Engineering: Materials Science program or Physics program. Cross-listed with: ENMA460. Credit only granted for: ENMA460 or PHYS431. Additional information: Materials Engineering students take ENMA460 and Physics students take PHYS431.

Classes of materials; introduction to basic ideal and real materials' behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

0101	Johnpierre Paglione	Seats (Total: 45)
	MW 5:00pm - 6:15pm	PHY 1410

PHYS467 **Introduction to Quantum Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: MATH141 and MATH240; or equivalent. Recommended: Students need not have taken a course on quantum mechanics; however, students should be comfortable with: probability theory, Markov chains, complex numbers, quantum states, measurements, unitary operations, matrix algebra, Pauli matrices, the tensor product, waves, the harmonic oscillator, the quantum harmonic oscillator, and the Schrodinger equation.

Investigates the physical systems used to implement quantum computers. Covers basics of atomic clocks, laser interferometers, quantum key distribution, quantum networks, and three types of qubits (ion-based, superconductor-based, and semiconductor-based).

0101	Alicia Kollar TuTh 9:30am - 10:45am	Seats (Total: 30) PHY 1204	

PHYS485 **Electronic Circuits**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PHYS272 and PHYS276. Restriction: Must be in a major within CMNS-Physics department.

Theory and application to experimental physics of modern semiconductor analog and digital circuits. Emphasis on understanding passive and active elements in practical circuits. Topics span the range from simple transistor circuits to microcomputers.

Additional Note: Jointly offered with PHYS685. Credit only granted for PHYS485 or PHYS685.

0101	Sarah Eno M 2:00pm - 2:50pm W 1:00pm - 4:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab
0102	Sarah Eno M 2:00pm - 2:50pm Tu 2:00pm - 5:50pm	Seats (Total: 16) PHY 1402 PHY 3214	 Lab

PHYS499A **Special Problems in Physics**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499B **Special Problems in Physics**

(Perm req)

Credits: 1-16 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Contact department for information to register for this course.

PHYS499F **Special Problems in Physics; Quantum Boot Camp**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

Prerequisites: MATH141 and either MATH240 or PHYS274; or equivalent course work. Also offered as ENEE489F, CHPH499F, and CMSC488A. Credit only granted for PHYS499F, ENEE489F, CMSC488A, or CHPH499F. Designed for computer science, engineering and mathematics majors. Introduces basic concepts and techniques widely used in quantum information science.

0101	Charles Clark	Seats (Total: 40)
	M 2:00pm - 3:15pm	ATL 3100A

PHYS499Q **Special Problems in Physics; Seminar in Physics Education Research**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

This discussion-based seminar will introduce students to some of the compelling research being done in physics education research (PER) and adjacent fields. Students will be introduced to educational research studies on student learning, research-based instructional approaches and curricular resources for supporting students' learning of physics, and assessment tools for measuring aspects of students' learning experiences and students understanding of key concepts and skills in physics education. Course activities may include observing learning environments and conducting interviews.

0101	Robert Dalka	Seats (Total: 15)
	MF 1:00pm - 1:50pm	ONLINE

PHYS499V **Special Problems in Physics; Colloquium for Undergraduate Physics Majors**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Research or special study. Credit according to work done.

0101	Instructor: TBA	Seats (Total: 60)
	Th 4:00pm - 6:15pm	Location: TBA

PHYS610 **Mathematical Methods and Their Applications in Classical Mechanics and Electrodynamics I**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission of CMNS-Physics Department.

First course of a two-semester graduate level sequence on classical mechanics, electrodynamics and relativity and the mathematics that underlie these subjects. Mathematical methods will generally be introduced in the context of relevant physical problems.

0101	Zackaria Chacko	Seats (Total: 65)
	TuTh 9:30am - 11:30am	PHY 1201

PHYS612 **Quantum and Statistical Physics I**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: Must have an outstanding undergraduate background in physics. Restriction: Permission of CMNS-Physics Department.

First course of a two-semester graduate level sequence on topics in quantum mechanics and statistical mechanics.

0101	Thomas Cohen	Seats (Total: 65)	
	MWF 10:00am - 10:50am	BPS 1243	
	F 11:00am - 11:50am	BPS 1243	

PHYS624 **Advanced Quantum Mechanics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PHYS623.

Relativistic wave equations, second quantization in many body problems and relativistic wave equations, Feynman-Dyson perturbation theory, applications to many body problems, application to quantum electrodynamics, elements of renormalization.

0101	Zohreh Davoudi	Seats (Total: 38)	
	TuTh 9:30am - 10:45am	PHY 1402	

PHYS685 **Research Electronics**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: An outstanding undergraduate background in physics or permission of the instructor. Restriction: Must not have completed PHYS485. Credit only granted for: PHYS485 or PHYS685.

An integrated lecture and laboratory course in electronics with equal emphasis on experimental methods and results and analysis using device models and up-to-date mathematical and numerical tools. Experiments and analysis of circuits with passive and single active devices form the background for the study of operational amplifiers, digital integrated circuits and systems, and microcomputers. The general topics of impedance matching, frequency response, feedback, interfacing and the extraction of signal from noise are stressed.

Additional Note: Jointly offered with PHY485. Credit only granted for PH YS685or PHYS485.

0101	Sarah Eno	Seats (Total: 16)	
	M 2:00pm - 2:50pm	PHY 1402	
	W 1:00pm - 4:50pm	PHY 3214	Lab
0102	Sarah Eno	Seats (Total: 16)	
	M 2:00pm - 2:50pm	PHY 1402	
	Tu 2:00pm - 5:50pm	PHY 3214	Lab

PHYS709 **Seminar in General Physics; Statistical Physics**

Credits: 1 Grading Method: Regular, Audit

Cross-listed with CHPH709B.

0101	Pratyush Tiwary Tu 1:15pm - 2:30pm	Seats (Total: 30) IPT 1116

PHYS728 Seminar in Atomic and Molecular Physics

Credits: 1 Grading Method: Regular, Audit

0101	Steven Rolston M 11:00am - 12:50pm	Seats (Total: 30) ATL 2400

PHYS738 Seminar in Experimental Solid State Physics; Quantum Mechanical Many-Body Problems

Credits: 1 Grading Method: Regular, Audit

0101	Johnpierre Paglione Th 2:00pm - 3:50pm	Seats (Total: 15) PHY 1201

PHYS739 Seminar in Theoretical Solid State Physics; Quantum Mechanical Many-Body Problems

Credits: 1 Grading Method: Regular, Audit

0101	Sankar Das Sarma Tu 11:00am - 12:15pm	Seats (Total: 15) PSC 3150

PHYS749 Seminar in Theoretical Nuclear Physics

Credits: 1 Grading Method: Regular, Audit

0101	Xiangdong Ji W 4:00pm - 6:00pm	Seats (Total: 20) EGR 1110

PHYS758E Seminar in Elementary Particles and Quantum Field Theory; Seminar in Elementary Particles and Quantum Field Theory

Credits: 1 Grading Method: Regular, Audit

0101	Peter Shawhan W 4:00pm - 5:50pm	Seats (Total: 25) PHY 1201

PHYS759 Seminar in Elementary Particles and Quantum Field Theory

Credits: 1 Grading Method: Regular, Audit

0101	Kaustubh Agashe M 3:00pm - 4:40pm	Seats (Total: 15) PSC 3150

PHYS769 **Seminar in Plasma Physics**

Credits: 1 Grading Method: Regular, Audit

Class will meet in ERF 1207.

0101	Adil Hassam W 4:00pm - 5:15pm	Seats (Total: 20) EGR 3102

PHYS778 **Seminar in Space and Cosmic Ray Physics**

Credits: 1 Grading Method: Sat-Fail, Audit

0101	Eun-Suk Seo M 4:30pm - 5:45pm	Seats (Total: 20) ATL 2400

PHYS798 **Special Problems in Advanced Physics**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Projects or special study in advanced physics.

Contact department for information to register for this course.

PHYS798B **Special Problems in Advanced Physics; Physics Colloquium**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Thomas Cohen Tu 3:30pm - 6:15pm	Seats (Total: 160) PHY 1410

PHYS798L **Special Problems in Advanced Physics; Biophysics**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Arpita Upadhyaya M 4:00pm - 5:30pm	Seats (Total: 20) IPT 1116

PHYS798Q **Special Problems in Advanced Physics; Seminar in Quantum Physics, Information, and Technology**

Credits: 1 Grading Method: Regular, Audit

Projects or special study in advanced physics.

0101	Alexey Gorshkov	Seats (Total: 100)
	F 12:00pm - 12:50pm	ATL 2324

PHYS799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PHYS838C **Special Topics in Experimental Solid State Physics; Superconductivity, Quantum Materials and Nanoscience Seminar**

Credits: 2 Grading Method: Regular, Audit

Credit according to work done.

0101	Johnpierre Paglione	Seats (Total: 50)
	M 4:00pm - 5:50pm	PHY 1201

PHYS839A **Special Topics in Theoretical Solid State Physics; Theory of Low Dimensional Systems**

Credits: 1 Grading Method: Regular, Audit

Credit according to work done.

0101	Sankar Das Sarma	Seats (Total: 20)
	F 4:00pm - 7:00pm	Location: TBA

PHYS859D **Special Topics in Elementary Particles and Quantum Field Theory; Supersymmetry and Higher Dimensions**

Credits: 3 Grading Method: Regular, Audit

Credit according to work done.

Prerequisites: Intended for students that have completed a year of quantum field theory (at the level of PHYS624, PHYS851), or roughly at the level of understanding the basics of Gauge Theory, the Higgs mechanism Loops and Renormalization. Familiarity with the Standard Model at the level of PHYS751 will be helpful, as will familiarity with General Relativity. Introduces various field theoretic methods, both perturbative and non-perturbative, such as AdS/CFT Duality and Effective Field Theory methodology, and some Beyond Standard Model paradigms within particle physics and inflationary cosmology and their implications for experiments/observations.

0101	Raman Sundrum	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	ATL 0201

PHYS879G **Special Topics in General Relativity; Gravitational-Wave Physics**

Credits: 3 Grading Method: Regular, Audit

Credit according to work done.

0101	Alessandra Buonanno	Seats (Total: 20)	
	Meets October 17, 2022 - December 13, 2022		
	MTu 10:00am - 11:30am	ONLINE	
	Th 10:30am - 12:00pm	ONLINE	Discussion

PHYS889Q **Special Topics in Interdisciplinary Problems; Seminar in Physics Education Research**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Credit according to work done.

This discussion-based seminar will introduce students to some of the compelling research being done in physics education research (PER) and adjacent fields. Students will be introduced to educational research studies on student learning, research-based instructional approaches and curricular resources for supporting students' learning of physics, and assessment tools for measuring aspects of students' learning experiences and students understanding of key concepts and skills in physics education. Course activities may include observing learning environments and conducting interviews.

0101	Robert Dalka	Seats (Total: 15)	
	MF 1:00pm - 1:50pm	ONLINE	

PHYS898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PHYS899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLCY Public Policy Fall 2022

PLCY100 **Foundations of Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

A survey course, focusing on public policy institutions and analytical issues as well as on overview of key public policy problems. Students will be introduced to public policy as a discipline, with a brief overview of the actors and institutions involved in the process, and familiarize themselves with the kinds of problems typically requiring public action. The course will examine these problems from a multijurisdictional and multisectoral perspective. Specific policy areas examined include education policy, health policy, economic and budgetary policy, criminal justice policy, environmental policy, and national and homeland security policy. The course should permit students to have broad foundational exposure to the field that will give them a solid base for more advanced courses.

0101	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) SPP 0301 SPP 0102	Discussion
0102	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) SPP 0301 SPP 0225	Discussion
0103	M Apolonia Calderon Cervantes MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 30) SPP 0301 VMH 1203	Discussion
0201	Eric Luedtke MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) SPP 0301 SPP 0225	Discussion
0202	Eric Luedtke MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) SPP 0301 ASY 1213	Discussion
0203	Eric Luedtke MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) SPP 0301 VMH 1203	Discussion
0204	Eric Luedtke MW 12:00pm - 12:50pm F 12:00pm - 12:50pm	Seats (Total: 30) SPP 0301 TWS 1310	Discussion

PLCY101 **Great Thinkers on Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Great ideas in public policy, such as equality, efficiency, sovereignty, liberty, bureaucracy, democracy and security are explored through the lens of great thinkers. An introduction to the intellectual foundations of public policy, from ancient theories on collective public action through the more contemporary development of public policy as a discipline. This may start as early as the ancient Greek philosophers and their views on public action through contemporary classics of public policy. At the conclusion of the course, students will have read classic works in the field and will master the key themes that have dominated the intellectual debates about public policy over its history. Emphasis will be on the interdisciplinary foundations of public policy, through examining core disciplinary contributions from economics, political science, management, philosophy, and other relevant disciplines.

0101	Gregory Ramsay MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SPP 0102 SPP 0102	 Discussion
0102	Gregory Ramsay MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) SPP 0102 LEF 1171	 Discussion
0201	Philip Joyce TuTh 12:30pm - 1:45pm	Seats (Total: 40) SPP 0102	

PLCY201 **Public Leaders and Active Citizens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

0101	Nancy Lineman Tu 5:00pm - 7:30pm	Seats (Total: 70) SPP 0301	
0401	Eric Luedtke TuTh 11:00am - 12:15pm	Seats (Total: 70) SPP 0301	
FC01	Margaret Brindle TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) TYD 2106	

FC02	Margaret Brindle TuTh 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) TYD 2106

PLCY201S **Public Leaders and Active Citizens**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP, SCIS

Credit only granted for: PLCY201 or PUAF201. Formerly: PUAF201.

Aims to inspire, teach and engage students in the theory and practice of public leadership from the local to the national to the global level. Students will learn and apply diverse approaches to leadership in a multicultural society while developing an understanding of key frameworks and practices necessary to foster collective action across private, public, and nonprofit sectors. This course will allow students to become informed citizens able to reason critically and persuasively about public matters Students will also explore and assess their own personal values, beliefs, and purpose as they develop their leadership potential.

Restricted to freshman students in College Park Scholars Public Leadership program.

0101	Susannah Washburn TuTh 2:00pm - 3:15pm	Seats (Total: 96) CCC 1100

PLCY203 **Liberty and Justice for All: Ethics and Moral Issues in Public Policy**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Students will broaden their understanding of the moral dimensions of public policy as well as their own individual moral perspective. Discussions will include the ideal of a just society, and the place of liberty and equality in it, while focusing on contemporary theories of ethics and justice. It will develop students' appreciation of the ethical challenges unique to the public service sector while building their skills in ethical analysis and decision-making. We will explore the increasing ethical challenges in a world in which technology, global risks, and societal developments are accelerating faster than our understanding can keep pace. A framework for ethical decision-making underpins the course.

0101	Anne Kaiser MW 2:00pm - 3:15pm	Seats (Total: 60) SPH 1303
0201	Leonard Howie TuTh 6:00pm - 7:15pm	Seats (Total: 60) SQH 1119

PLCY213 **Foundations of Nonprofit Leadership and Social Innovation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Through discussions of contemporary trends, challenges and issues, this course provides an introduction to the nonprofit and NGO sectors, social innovation, and the leadership and management skills required to achieve social impact. The course will explore the history, theories, and roles of philanthropy, the nonprofit sector, and social innovation in societies and cultures. Students will be able to demonstrate an understanding of the process and principles of social entrepreneurship and social innovation. Additionally, the course will introduce students to topics in leadership, social innovation, resource development, community mobilization through networks, the role of policy-making in creating change, project management, and overall strategies for achieving social impact. The course will include mini hands-on learning experiences that allow them to apply key learning outcomes.

0101	Ebonie Cooper-Jean TuTh 11:00am - 12:15pm	Seats (Total: 40) VMH 1203
0201	Claire Dunning TuTh 9:30am - 10:45am	Seats (Total: 40) EDU 2119

PLCY214 **Leading and Investing in Social Change: Re-defining and Experimenting with Philanthropy**

Credits: 3 Grading Method: Regular General Education: DSSP, SCIS

Credit only granted for: PLCY214, PUAF214 or PUAF359I. Formerly: PUAF359I, PUAF214.

Defines philanthropy as an exploration of how one develops a vision of the public good and then deploys resources (including donations, volunteers, and voluntary associations) to achieve an impact.

Restricted to students in Carillon Communities.

0101	Patricia Bory TuTh 2:00pm - 3:15pm *Restricted to students in the iGive Living Learning Program.*	Seats (Total: 65) TWS 1100

PLCY240 **Ethical, Policy and Social Implications of Science and Technology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, SCIS

Restriction: Must be in the Science, Technology, Ethics and Policy minor. Cross-listed with: ENES240. Credit only granted for: ENES240 or PLCY240.

Asks students to think about how society should manage complexity, transformation, and uncertainty with an eye on developing a broader sense of ethics and social responsibility. Introduces analytical frameworks, concepts, and data collection techniques that interdisciplinary scholars use to map relationships among science, technology and society and generate important questions about the future of society.

0101	Timothy Reedy TuTh 12:30pm - 1:45pm	Seats (Total: 50) ESJ 2212

PLCY288A **Introduction to Public Policy Topics; 21st Century Racial Justice and Gender from the Bullhorn to the Ballot**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

The intersection of gender and racial justice movements of the past two decades. Students will examine the representation and complication of gender within police reform, voting rights and environmental justice movements, among others. Particular attention will be given to the role gender has played as these issues and related policies have evolved in the modern era.

0101	Rexanah Wyse Morrissette	Seats (Total: 25)
	TuTh 6:00pm - 7:15pm	JMZ 2120

PLCY288B **Introduction to Public Policy Topics; The Impact of Discriminatory Housing Policies**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

Surveys the historical and present-day housing policies that led to segregation and the marginalization of communities, such as African Americans, Hispanic Americans, Asian Americans, and others, and its socioeconomic impact. Students will examine and analyze the theoretical and practical implications of affordable housing programs such as public housing, housing choice voucher program, low-income housing tax credit, mixed-income, etc. Students will discuss applicable civil rights laws and develop policy recommendations to solve historic and current housing issues.

0101	Jill Yu	Seats (Total: 25)
	MW 6:00pm - 7:15pm	JMZ 0118

PLCY288L **Introduction to Public Policy Topics; Law and Public Policy--Organizing and Advocating for Justice**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

Students will gain a contextual understanding of how policy decisions and legal structures affect different people, as well as the role of law in organizing and advocating for just policy and social change. Students will analyze how structural inequities are shaped by historical, legal, social, and political factors, building on that knowledge to strategize solutions to problems requiring policy reform and systemic change.

0101	Brandi Slaughter	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	SPP 0301

PLCY288Q **Introduction to Public Policy Topics; Introduction to International Security**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Introductory-level special topics focusing on a Public Policy problem or issue area.

Introduces major concepts, debates, and challenges in international security policy. Some of today's problems have existed in various forms for centuries, such as potential conflicts between great powers, violence by governments against their own people and by terrorist organizations, and the disruptive effects of powerful new technology. Some are more recent, such as nuclear deterrence and non-proliferation, humanitarian crises, and human security. And others, including cyber security, drones, and climate change, are the leading edge of future security challenges. Fundamental questions about how to make the world safer will be a major theme of this course.

0101	Devin Entrikin	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SPP 0225

PLCY300 **Governance: Collective Action in the Public Interest**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLCY100. Restriction: Must be in a major in PLCY-School of Public Policy.

Examination of societal responses to public problems, including actions by government, non-profit and private sector actors, as well as civil society. Students will examine the roles of these various actors, as well as the nature of civic responsibility. The course will examine the various stages of the policy process, asking the following questions: How does something get defined as a problem that requires a public policy response? How do we think about what the options are for this response, and how do we choose among them? What are the factors that contribute to successful policy implementation? How do we evaluate the success of public policies? These questionswill be addressed using examples of current public policy problems, and students will be expected to engage in individual and collaborative work to design responses to those problems.

0201	Niambi Carter	Seats (Total: 45)
	TuTh 12:30pm - 1:45pm	SPP 0225

PLCY301 **Sustainability**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: AGNR301. Credit only granted for: AGNR301, PUAF301, or PLCY301. Formerly: PUAF301.

Designed for students whose academic majors would be enhanced by the complementary study of a widely shared but hard-to-operationalize aspiration: that present choices should preserve or improve future options rather than foreclose or degrade them. How should we understand sustainability? How might we achieve it? How would we know if we had achieved it? And how could sustainability activists of a rising generation lead by example?

0101	Caroline Boules TuTh 12:30pm - 1:45pm	Seats (Total: 165) JMZ 0220

PLCY302 **Examining Pluralism in Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: PLCY302 or PUAF302. Formerly: PUAF302.

Understanding pluralism and how groups and individuals coexist in society is an essential part of the public policy process. This course will examine the ways in which the diverse experiences of race, gender, ethnicity, class, orientation, identity, and religion impact the understanding of and equitable delivery of public policy. The examination of how identity development shapes our understanding of society and influences the decision-making process is central to students' shaping policy that is truly for the people. This course will equip students with the skills needed to analyze pluralism and draw conclusions about the application of various theories to public policy issues.

0201	Brandi Slaughter M 2:00pm - 4:30pm	Seats (Total: 40) SPP 0225
0301	Chloe Schwenke MW 6:00pm - 7:15pm	Seats (Total: 40) ASY 3211
0401	PATRINA CLARK Th 4:15pm - 6:45pm	Seats (Total: 40) SPH 0302

PLCY303 **Public Economics Raising and Spending the People's Money**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ECON200. Restriction: Must be in a major in PLCY-School of Public Policy.

Applied course in public finance, including introductions to resource mobilization (including taxation), macroeconomic policy, key public expenditure policies, and government budgetary processes and politics. The course will build on the foundations from ECON 202 to address the specific application of public finance principles to solving public problems. The course will focus on the principles of welfare economics (including market failure), economic principles as applied to particular spending programs and tax choices, and issues and institutions involved in the allocation and management of resources both at a national and subnational level. The focus of the course is on these issues from both a domestic and global perspective.

0101	Thomas Spreen TuTh 9:30am - 10:45am	Seats (Total: 40) JMZ 2206

PLCY304 **Evaluating Evidence: Finding Truth in Numbers**

Credits: 4 Grading Method: Regular

Prerequisite: STAT100. Restriction: Must be in a major in PLCY-School of Public Policy.

Enables students to understand the research done by others with a sufficiently skeptical eye to allow them to determine whether the findings of the research are valid given the assumptions made and methods used. This will involve, in part, thinking about the various problems in research design or conduct that could lead to faulty conclusions. It will also involve being able to differentiate between credible sources of information and those that are not objective. At the conclusion of the course, students should be able to differentiate objective evidence from political argumentation.

0101	Michael Busse TuTh 12:30pm - 1:45pm F 10:00am - 10:50am	Seats (Total: 40) EGR 0135 SPP 0225	Discussion
0201	Michael Busse TuTh 2:00pm - 3:15pm F 11:00am - 11:50am	Seats (Total: 40) EGR 3106 SPP 0225	Discussion
0301	Michael Busse TuTh 5:00pm - 6:15pm W 10:00am - 10:50am	Seats (Total: 40) JMZ 2206 SPP 0102	Discussion

PLCY306 **Public Policy Analysis in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 60 credits; and must be in a major in PLCY-School of Public Policy.

Utilizes our unique location in the Washington, D.C. region to create a laboratory within which to analyze local, regional, national and international policy problems. Students will be put into teams and assigned to real and timely policy cases. The course will include meetings and field trips with local leaders in the field, ideally connected to the cases. Student will then expand and apply their use of policy analysis and evaluation skills to define those problems, analyze alternative responses, devise appropriate strategies for implementation, and evaluate the success of the proposed policy and implementation. The course will conclude with team presentations to local leaders and faculty. This distinctive course will serve to prepare students for their client- based senior capstone course.

0101	Angela Bies W 2:00pm - 4:30pm	Seats (Total: 45) SQH 1117	
0201	Curtis Valentine M 3:00pm - 5:30pm	Seats (Total: 45) ASY 2309	

PLCY309 **Internship in Political Institutions: State and Local**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Offers students supervised internship placements in state and local political or public policy organizations.

0101	Martin Sanders	Seats (Total: 50)
	Contact instructor or department for details.	

PLCY310 **Nonprofit Leadership and Social Innovation in Action**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLCY 213.

Furthers students understanding of topics in leadership, social innovation, resource development, community mobilization through networks, and the role of policy making in creating change. This course will further students understanding of the creation and leadership of nonprofits, social ventures, governance and boards; strategic planning and partnerships; advocacy and public policy processes; community outreach; working in teams, effective communications, and cross-sector approaches to scaling up social impact.

0101	Selvon Waldron	Seats (Total: 45)
	M 6:00pm - 8:30pm	VMH 1207

PLCY311 **Women in Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PUAF311, PLCY311 or PUAF359W. Formerly: PUAF359W.

Examines the role of women in the leadership process including the participation of women as activists, voters, advocates, public leaders and as agents of change through various avenues including, among others, public service (elected and appointed), the media, community service, political organizations, and the nonprofit sector.

0101	Anne Kaiser	Seats (Total: 30)
	Tu 4:15pm - 6:45pm	SPP 0225

PLCY313 **Advocacy in the American Political System**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: PUAF313, PLCY313 or PUAF359C. Formerly: PUAF359C.

Introduces students to the creation of law through the legislative process with a special focus on the Maryland General Assembly.

0101	Gerard Evans	Seats (Total: 100)
	M 2:00pm - 4:30pm	SPP 0301

PLCY380 **Innovation and Social Change: Do Good Now**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	General Education: DSSP, SCIS

Credit only granted for: ARHU380, BSOS388B, PLCY388D, or PLCY380. Formerly: PLCY388D.

Introduces students to the concept of social innovation while exploring the many mechanisms for achieving social impact. It is team-based, highly interactive and dynamic, and provides an opportunity for students to generate solutions to a wide range of problems facing many communities today. Deepens the students understanding of entrepreneurship and innovation practices by guiding them through the creation and implementation process as applied to a project idea of their choice.

0201	Katlin Gray TuTh 9:30am - 10:45am	Seats (Total: 35) ESJ 2101
ESG1	Kisha Monroe Class time/details on ELMs F 11:00am - 12:00pm *Restricted to undergraduate student in programs at Shady Grove. BMGT-Shady Grove students register for section SG91.*	Seats (Total: 25) ONLINE ONLINE
SG91	Kisha Monroe Class time/details on ELMs F 11:00am - 12:00pm *Restricted to BMGT-Shady Grove students. Undergraduate students in other Shady Grove programs register for section ESG1.*	Seats (Total: 5) ONLINE ONLINE

PLCY388B **Special Topics in Public Policy; Intelligence Theory and Practice**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

This is an introduction to the history, structure, and practices of the national security intelligence community (IC). This course will provide students with an understanding of the theory and practice of intelligence, including the intelligence cycle, past and present organization of the intelligence community, and future initiatives. The course will alsoexamine the capabilities and limitations of the various intelligence collection disciplines, analytic methodologies and pathologies, and the relationship between intelligence and policy. The course is team-oriented, project-based and grounded in the relevant legal and ethical context.

0101	Ellen McCarthy Tu 3:30pm - 5:45pm Class time/details on ELMs	Seats (Total: 38) HBK 0105 ONLINE

PLCY388N **Special Topics in Public Policy; Advancing Justice Through Leadership and Public Service**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Must be in the Rawlings Undergraduate Leadership Fellows Program. Students will engage in leadership-based learning and public service projects to examine contemporary issues in public policy.

0101	Nina Harris	Seats (Total: 25)
	W 4:15pm - 6:45pm	SPP 0102

PLCY388V **Special Topics in Public Policy; Public Policy Challenges in Africa**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

Introduces major public policy challenges in Africa today and includes a brief review of African history from 1600 through the post-colonial period to provide critical background. Catalyzing economic growth, promoting democratic governance, and reducing armed conflict will be discussed. Also covered are the role of African diasporas and migration in national development, managing the continent's rapid urbanization, and improving service delivery in key areas such as health and education.

0101	Michael Woldemariam	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	SPP 0102

PLCY399B **Directed Study in Public Policy; Policy Ambassadors**

(Perm req)

Credits: 1

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

As School of Public Policy Ambassadors, students share their experience as SPP students with others through skill-building activities such as: public speaking, event and program planning, personal storytelling, social media, and networking. Ambassadors will burnish their leadership skills as SPP representatives with a specific focus on recruiting prospective students.

0101	Beatrice DeBelen	Seats (Total: 25)
	Contact instructor or department for details. Class time/details on ELMs	ONLINE

PLCY399R **Directed Study in Public Policy; Independent Research**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

0101	Catherine Worsnop Contact instructor or department for details.	Seats (Total: 10)
0201	Aaron Mannes Contact instructor or department for details.	Seats (Total: 5)
0401	Shanna Pearson Contact instructor or department for details.	Seats (Total: 5)

PLCY399T **Directed Study in Public Policy; Undergraduate Teaching Assistant**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

0101	Jennifer Littlefield Contact instructor or department for details.	Seats (Total: 30)

PLCY400 **Senior Capstone**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: PLCY306. Restriction: Permission of PLCY-School of Public Policy; and must have earned a minimum of 90 credits.

Public Policy students will take the skills and knowledge gained through their curriculum and apply them through their senior capstone course. Students will work in teams on problems and issues presented by outside clients, with guidance from faculty facilitators and interaction with the clients. Each team will work with the client to address a particular problem and produce a mutually agreed upon outcome. These hands on projects will advance students' understanding of the analytical, leadership, communication and problem solving skills necessary to address today's policy problems while allowing them to gain professional level experience that could contribute to their success in their post UMD endeavors. The course will conclude with an event that allows all teams to present their findings and outcomes to their client while being evaluated by faculty and public policy professionals.

0101	Martin Sanders Tu 6:00pm - 8:30pm	Seats (Total: 30) SQH 1105
0201	Ebonie Cooper-Jean Th 2:00pm - 4:30pm	Seats (Total: 30) TYD 1114

PLCY401 **Contemporary Issues in Public Policy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must have earned a minimum of 90 credits.

An integrative course that allows policy students to explore the complexities of the policy-making process from the perspective of specific policy topics. They will learn about and discuss subject- based issues in a seminar format led by faculty and policy experts. Site visits to federal agencies, guest speakers, and round table sessions ensure that students receive a variety of real-world perspectives on their chosen policy area.

0101	M Apolonia Calderon Cervantes MWF 12:00pm - 12:50pm	Seats (Total: 40) SPP 0102	

Addresses immigration policy from a critical and interdisciplinary perspective and focuses on the role of various institutional actors in making and implementing immigration and integration policies. Readings cover a selection of contemporary public policy debates on the topic. During the discussion and breakdown of these policies over time, the class will analyze government data on immigration policy.

PLCY610 Quantitative Aspects of Public Policy

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY610 or PUAF610. Formerly: PUAF610.

Introduces statistical methods needed for evaluating and choosing among policy options. Topics include probability; decision-making under uncertainty; the organization, interpretation, and visual display of complex data; prediction and inferences about causality; hypothesis testing; and linear and multiple regression. Develops analytical skills and the ability to apply theory to complex, real-world problems.

0201	Eleanor Kerr W 4:15pm - 6:45pm Th 4:15pm - 6:45pm	Seats (Total: 45) SPP 0225 VMH 1203	 Discussion
0401	Eleanor Kerr Tu 9:15am - 11:45am Th 9:15am - 11:45am	Seats (Total: 45) VMH 1207 VMH 1207	 Discussion

PLCY640 Microeconomic and Policy Analysis

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY640 or PUAF640. Formerly: PUAF640.

Applies intermediate microeconomic theory to public policy issues: resource allocation by firms and consumers; the response of economic agents to changes in incentives; market allocations in competitive and non-competitive environments; and market failures and government remedies. Uses extended case studies of particular issues in such areas as the environment (acid rain), international trade (tariffs), industry regulation (cable TV), and the provision of public goods (highways).

0101	Yueming Qiu W 1:30pm - 4:00pm Tu 4:15pm - 6:45pm	Seats (Total: 40) SPP 0225 PHY 2213	Discussion
0201	Yueming Qiu Tu 9:15am - 11:45am M 1:30pm - 4:00pm	Seats (Total: 40) SPP 0102 TWS 0320	Discussion

PLCY641 **Macroeconomics and Policy Analysis**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY641 or PUAF641. Formerly: PUAF641.

Studies the behavior of the economy as a whole: the level of national income, unemployment, and inflation; the vulnerability of the U.S. economy to external influences; possible federal influence over the level of economic activity; and the consequences for prices, employment and the U.S. trade deficit. Also examines possible U.S. policy responses to widespread debt crises in developing countries.

0101	John Green M 1:30pm - 4:00pm W 9:15am - 11:45am	Seats (Total: 22) HBK 0123 KEY 0124	Discussion
0201	Seth Weissman M 1:30pm - 4:00pm W 9:15am - 11:45am	Seats (Total: 25) JMZ 3205 PLS 1111	Discussion

PLCY650 **Moral Dimensions of Public Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY650 or PUAF650. Formerly: PUAF650.

Explores the moral issues involved in public policy questions; the limits and usefulness of decision-making tools; problems of choosing, justifying and using criteria to judge a program's success and suitability; ethichal issues involving the welfare state and income distribution; and possible obligations beyond one's political community and generation.

Contact department for information to register for this course.

PLCY670 **Public Budgeting & Financial Management**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLYC670 or PUAF670. Formerly: PUAF670.

Covers how governments raise, spend, borrow, and manage public funds. Reviews federal,state, and local budget processes and introduces analytical techniques including basic spreadsheet skills, evaluating alternative revenue sources, revenue and expenditure forecasting, cost allocation, capital budgeting, cost-benefit analysis, discounting and present value, bond analysis, cash management and intergovernmental finance.

0101	Philip Joyce Tu 4:15pm - 6:45pm	Seats (Total: 40) SPP 0102
CA02	Mark Troutman Tu 9:15am - 11:45am	Seats (Total: 16) SPP 1201

PLCY688C **Topics in Public Policy; Cyberspace: Legal and Policy Implications**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

0101	Charles Harry M 1:30pm - 4:00pm	Seats (Total: 20) SPP 2202

PLCY688E **Topics in Public Policy; Governance: Normative & Political Dimensions**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

PUAF major or permission of instructor.

0101	Mark Croatti Th 4:15pm - 6:45pm	Seats (Total: 22) SPP 0225
0201	Catherine Worsnop W 9:15am - 11:45am	Seats (Total: 25) SPP 0225
0301	Catherine Worsnop Th 9:15am - 11:45am	Seats (Total: 25) SPP 0225

0401	Mark Croatti Th 7:00pm - 9:30pm	Seats (Total: 32) SPP 0225

PLCY688F **Topics in Public Policy; State, Local, and NonProfit Financial Mgmt**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

0101	Nathan Dietz Th 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
CA01	Nathan Dietz Th 6:30pm - 9:00pm	Seats (Total: 18) ONLINE *Must be in the Nonprofit Management and Leadership graduate certificate program.*

PLCY688G **Topics in Public Policy; Governance: Leadership, Management and Accountability**

Credits: 3 Grading Method: Regular, Audit

Special topics in Public Policy.

Restricted to PLCY majors or permission of instructor.

0201	Samuel McCann W 7:00pm - 9:30pm	Seats (Total: 15) SPP 0225
0301	Elizabeth Duke Tu 9:15am - 11:45am	Seats (Total: 27) SPP 0225

PLCY689E **Public Policy Topics; Program Evaluation and Cost-Benefit Analysis**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

0101	Susan Parker Th 9:15am - 11:45am	Seats (Total: 28) SPP 0102

PLCY689J **Public Policy Topics; Food Economics and Health**

Credits: 3 Grading Method: Regular, Audit

Special Topics in Public Policy.

Restricted to PLCY majors or instructor permission.

0101	Alok Bhargava W 1:30pm - 4:00pm	Seats (Total: 15) SPP 1201

PLCY689Q **Public Policy Topics; Quantitative Methods for Evidence-based Policies**

Credits: 3 Grading Method: Regular, Audit

Special Topics in Public Policy.

0101	Alok Bhargava W 9:15am - 11:45am	Seats (Total: 16) SPP 1201

PLCY689R **Public Policy Topics; Program Planning and Implementation**

Credits: 3 Grading Method: Regular

Special Topics in Public Policy.

CA01	Douglas Besharov, Douglas Call **Meets October 17, 2022 - October 28, 2022** MTuWThF 3:00pm - 9:00pm	Seats (Total: 25) Location: TBA

PLCY689Y **Public Policy Topics; Nonprofit Fundraising**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special Topics in Public Policy.

0101	Ebonie Cooper-Jean M 6:30pm - 9:00pm	Seats (Total: 5) ONLINE
CA01	Ebonie Cooper-Jean M 6:30pm - 9:00pm *Must be in the Nonprofit Management and Leadership graduate certificate program.*	Seats (Total: 17) ONLINE

PLCY689Z **Public Policy Topics; Strategic Management for NonProfit and Public Organizations**

Credits: 3 Grading Method: Regular, Audit

Special Topics in Public Policy.

Restricted to PLCY majors or instructor permission.

0101	Robert Sheehan Tu 6:30pm - 9:00pm	Seats (Total: 5) ONLINE

CA01	Robert Sheehan Tu 6:30pm - 9:00pm	Seats (Total: 17) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY692 **Leadership Principles and Practices**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY692 or PUAF692. Formerly: PUAF692.

This course will introduce leadership principles and practices to students by focussing on the theory of leadership, different leadership themes and skills, and discussions with practitioners.

Contact department for information to register for this course.

PLCY698D **Selected Topics in Public Affairs; Social Entrepreneurship**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

0101	Bethany Henderson Tu 6:30pm - 9:00pm	Seats (Total: 5) ONLINE
CA01	Bethany Henderson Tu 6:30pm - 9:00pm	Seats (Total: 15) ONLINE
	Must be in the Nonprofit Management and Leadership graduate certificate program.	

PLCY698T **Selected Topics in Public Affairs; Managing Across Sectors**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Restricted to PLCY majors or instructor permission.

0101	Elizabeth Duke M 9:15am - 11:45am	Seats (Total: 20) SPP 0225
CA01	Elizabeth Duke M 9:15am - 11:45am	Seats (Total: 4) SPP 0225

PLCY699D **Selected Topics Public Policy; Examining Social Identity & Pluralism in Public Policy**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Understanding how groups and individuals develop and coexist in society is an essential part of public policy. Using the classroom as a laboratory, students will explore identity development and how the intersections of race, class, gender, sexual orientation, and other identities shape perceptions that inform decision-making and policy development. From historical scholars to current day movement leaders, this course equips students with tools necessary to critically analyze pluralism, power, and identity; and the skills needed to shape meaningful and equitable public policy and working and civic environments for all.

0101	Claire Dunning W 1:30pm - 4:00pm	Seats (Total: 25) SPP 0102
0201	Eric Luedtke M 1:30pm - 4:00pm	Seats (Total: 25) SPP 0102

PLCY699E **Selected Topics Public Policy; Ethics of Public Administration**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699F **Selected Topics Public Policy; Ethics of Public Administration**

Credits: 1-3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699G **Selected Topics Public Policy**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699I **Selected Topics Public Policy; Leading through State and Local Policymaking**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

For PLCY majors or permission of instructor. States and local governments have been famously called the laboratories of democracy. They are testing grounds for new policy ideas and training grounds for leaders who go on to serve in higher office. This course introduces a range of policy issues confronted by state and local governments in the United States, the constitutional and institutional constraints on policymakers who work in them, and the leadership skills involved in effective governance whether in a small town or a large state. In addition to these thematic topics, students will explore a range of policy areas with particular relevance to state and local government, including housing, environmental protection, taxation, transportation, and policing. Join us as we explore these laboratories of democracy.

0101	Eric Luedtke	Seats (Total: 20)
	W 1:30pm - 4:00pm	KEY 0119

PLCY699O **Selected Topics Public Policy; 21st Century Policy Challenges**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Contact department for information to register for this course.

PLCY699W **Selected Topics Public Policy; Policy Engagement Project A**

Credits: 2 Grading Method: Regular, Audit

Special topics that arise in public policy.

Restricted to PLCY majors or permission of instructor.

Contact department for information to register for this course.

PLCY699X **Selected Topics Public Policy; Policy Engagement Project A Extended**

Credits: 3 Grading Method: Regular, Audit

Special topics that arise in public policy.

Restricted to PLCY majors or permission of instructor.

0201	Douglas Call, Douglas Besharov	Seats (Total: 40)
	M 7:00pm - 9:30pm	SPP 0301
	Evaluation, performance measurement, and economic analysis projects (fo students in any specialization). Strongly recommend students have taken, or take in the next Spring Semester, PLCY689E "Program Evaluationand Cost-Benefit Analysis'.	
0311	Anand Patwardhan	Seats (Total: 16)
	Th 1:30pm - 4:00pm	SPP 2202
	Environmental and Energy projects.	

0401	Karin Johnston, Matthew Regan, Naoko Aoki Th 1:30pm - 4:00pm	Seats (Total: 50) VMH 1203
	International security and economic policy projects, and international development projects.		
0521	Angela Bies W 9:15am - 11:45am	Seats (Total: 16) VMH 1207
	Evaluation, Management, Leadership Non-profit.		

PLCY700 **U.S. Trade: Policy and Politics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PUAF641, PUAF620, and PUAF640. Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY700 or PUAF700. Formerly: PUAF700.

Interplay between government and private interests in shaping official actions that affect international trade. Policy tools available to influence balance, magnitude, and composition of imports and exports. Evolution of executive, congressional and quasi-judicial government institutions under increased U.S. international trade exposure and trade deficit.

0101	Susan Schwab, William Reinsch, Uri Dadush Th 9:15am - 11:45am	Seats (Total: 12) SPP 1201

PLCY711 **Public Management and Leadership**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY711 or PUAF711. Formerly: PUAF711.

Reviews the managerial, political, and ethical problems faced by public sector managers and leaders, including setting an organization's goals, obtaining and protecting a program mandate, designing a service delivery system and implementing a new program.

CA02	Rafique Anderson Tu 4:15pm - 6:45pm	Seats (Total: 22) BPS 1232

PLCY720 **International Security Policy**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY720 or PUAF720. Formerly: PUAF720.

Reviews the principal features of international security as currently practiced. Traces the evolution of contemporary policy beginning with the initiation of nuclear weapons programs during World War II. Particular emphasis is given to experience of the United States and Russia, since the historical interaction between these two countries has disproportionately affected the international security conditions that all other countries now experience.

0101	Joshua Itzkowitz Shifrinson Tu 4:15pm - 6:45pm	Seats (Total: 20) SPP 2202

PLCY734 **Foundations of Social Policy**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy. Credit only granted for: PLCY734 or PUAF734. Formerly: PUAF734.

Provides an overview of government's role in social policy and the history of the development of federal and state policies with respect to welfare, aging, education, and housing. Analyzes current federal institutions and legislation in the same policy areas and the demographic history of the United States. Develops skills in analytic writing and presentation of descriptive data.

0101	Niambi Carter M 9:15am - 11:45am	Seats (Total: 20) SPP 2202
0201	Shanna Pearson Tu 1:30pm - 4:00pm	Seats (Total: 20) VMH 1203

PLCY735 **Health Policy**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: PLCY735 or PUAF735. Formerly: PUAF735.

Analyzes the origins, history, status, and future of health care as problems in political and economic theory and as puzzles in policy formation. Considers current American reform controversies in the light of several disciplines and in comparison to foreign experiences and structures.

0101	Robert Sprinkle Th 4:15pm - 6:45pm	Seats (Total: 20) SPP 2202

PLCY741 **Global Environmental Problems**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY741 or PUAF741. Formerly: PUAF741.

Suitability of analytic tools for examining global environmental problems, human overpopulation, land abuse, ozone depletion, climate change, acid rain, loss of biological diversity, the scarcity of food, fresh water, energy and nonfuel mineral resources, and health hazards of pollutants toxic metals and radiation.

0101	Anand Patwardhan	Seats (Total: 27)
	W 1:30pm - 4:00pm	SQH 1121

PLCY744 Environment and Development

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: PLCY744 or PUAF744. Formerly: PUAF744.

Analyzes sustainable development and its conflicting interpretations. The dominant view, as expressed in the World Bank's 1992 World Development Report, is studied, along with some critical responses. Further readings on issues of population, consumption and development indicators.

0101	Thomas Hilde	Seats (Total: 20)
	W 7:00pm - 9:30pm	SPP 0102

PLCY752 Managing Differences:Resolving Conflict and Negotiating Agreements

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY752 or PUAF752. Formerly: PUAF752.

Enhances the student's negotiation and leadership skills for managing differences between individuals and groups. Students study the nature of conflict, learn how to handle two and multiparty conflicts, exerting leadership where there are no hierarchy leaders, and explore the impact of facilitators and mediators on the negotiating process. Blends skill building exercises and theory discussions about the behavior of groups and individuals in groups to understand negotiation dynamics.

Contact department for information to register for this course.

PLCY780 The American Foreign Policy-Making Process

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY780 or PUAF780. Formerly: PUAF780.

Survey and analysis of the governmental institutions and processes which shape U.S. global engagement on national security and international economic issues. Particular emphasis is given to executive-congressional relations and the broader domestic roots of foreign policy.

0101	Aaron Mannes	Seats (Total: 20)
	Th 4:15pm - 6:45pm	SPP 0102

PLCY783 **Development and Foreign Aid**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY783 or PUAF783. Formerly: PUAF698Q and PUAF783.

Examines the empirical, conceptual, and ethical dimensions of international development policies and U.S. foreign aid. What is the present character of development in poor countries/regions? How should development be conceived? What development strategies are best? What is and should be the purpose of U.S. foreign aide and development assistance?

0101	Margaret Brindle	Seats (Total: 20)
	Tu 7:00pm - 9:30pm	SPP 0225

PLCY790 **Project Course**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be in a major in PLCY-School of Public Policy; or permission of PLCY-School of Public Policy. Credit only granted for: PLCY790 or PUAF790. Formerly: PUAF790.

Students work at a sponsoring government agency or private firm researching problem of interest to sponsor and relevant to concentration. Emphasis on problem definition, organizing information, and both oral and written presentation of results.

Contact department for information to register for this course.

PLCY798A **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798B **Readings in Public Policy**

Credits: 1-3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Contact department for information to register for this course.

PLCY798M **Readings in Public Policy; Cooperative Security, Arms Control and Non-Proliferation Policy**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Restricted to PLCY majors or permission of instructor

0101	Nancy Gallagher Tu 1:30pm - 4:00pm	Seats (Total: 17) SPP 0201

PLCY798N **Readings in Public Policy; Energy Economics**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Restriction: Must be in a major in PUAF-School of Public Policy; or permission of PUAF-School of Public Policy.

0101	Jiehong Lou M 1:30pm - 4:00pm	Seats (Total: 8) SPP 0201

PLCY798Y **Readings in Public Policy; Nonprofit Management and Leadership**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Restriction: PLCY major or permission of instructor.

0101	Jeffrey Franco W 6:30pm - 9:00pm	Seats (Total: 10) ONLINE
CA01	Jeffrey Franco W 6:30pm - 9:00pm *Must be in the Nonprofit Management and Leadership graduate certificate program.*	Seats (Total: 20) ONLINE

PLCY798Z **Readings in Public Policy; Qualitative Research Methods and Public Policy**

Credits: 3 Grading Method: Regular, Audit

Guided readings for discussions on public policy.

Restricted to PLCY majors or instructor permission.

0101	Peter Reuter M 4:15pm - 6:45pm	Seats (Total: 20) SPP 0102

PLCY898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PLCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC Plant Sciences Fall 2022

PLSC112 **Introductory Crop Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNL (if taken with PLSC113), DSNS

Credit only granted for: PLSC101 or PLSC112 and PLSC113. Formerly: PLSC101.

Major crop plants including: anatomy, physiology, morphology, history, use, adaptation, culture, improvement and economic importance.

0101	Kayla Griffith MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 100) PLS 1140 ONLINE	

PLSC113 **Introductory Crop Science Laboratory**

Credits: 1 Grading Method: Regular

Corequisite: PLSC112 or permission of the Department of Plant Science and Landscape Architecture. Credit only granted for: PLSC101 or PLSC112 and PLSC113.

An introduction to the growth, function and identification of agronomic crops and the environment in which they are produced. This course is designed to complement the lecture material from PLSC 112.

Students must pay a $50.00 lab materials fee. Some lectures will take place in the Research Greenhouse.

0101	Kayla Griffith M 11:00am - 12:50pm	Seats (Total: 24) PLS 1153	Lab
0102	Kayla Griffith W 11:00am - 12:50pm	Seats (Total: 24) PLS 1153	Lab
0103	Kayla Griffith W 1:00pm - 2:50pm	Seats (Total: 24) PLS 1153	Lab
0104	Kayla Griffith M 1:00pm - 2:50pm	Seats (Total: 24) PLS 1153	Lab

PLSC115 **How Safe is Your Salad? The Microbiological Safety of Fresh produce**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS, SCIS

Recommended: PLSC110 and PLSC111; or (PLSC112 and PLSC113); or BSCI105; or (BSCI170 and BSCI171).

As food is produced in larger quantities and made to travel longer distances, keeping our food safe in this day and age is an ever growing challenge. This course will focus on the question of what it takes to grow and maintain safe fruits and vegetables, as food travels along the path from the farm to your fork. Food safety of fresh produce will be discussed from the public health, agricultural, economical and policy perspectives.

0101	Shirley Micallef	Seats (Total: 30)	
	Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	SQH 1119 PLS 1113	Discussion

PLSC125 **Feeding Ten Billion by 2050: Food Security and Crop Protection**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

A big question concerning global food security is "how can we feed 10 billion people in 2050?" This course will stimulate creative thinking about possible solutions particularly from the crop production perspective. The instructors will introduce the concept of food security and different dimensions of this complex issue, identify major constraints to food security, and discuss scientific approaches that may be used to meet the grand challenge. Emphasis will be placed on topical and controversial issues such as the impact of climate change, biofuel production and GM crops on food security, and novel strategies that can improve food security.

0101	Shunyuan Xiao, James Culver	Seats (Total: 35)	
	Tu 9:30am - 10:45am Th 9:30am - 10:45am	ESJ 2208 PLS 1119	Discussion
0102	James Culver, Shunyuan Xiao	Seats (Total: 35)	
	Tu 9:30am - 10:45am Th 9:30am - 10:45am	ESJ 2208 PLS 1113	Discussion
0103	James Culver, Shunyuan Xiao	Seats (Total: 35)	
	Tu 9:30am - 10:45am Th 9:30am - 10:45am	ESJ 2208 PLS 1117	Discussion

PLSC130 **Did Yeast Create Civilization?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Recommended: CHEM103, CHEM131, CHEM135, or CHEM146. Cross-listed with: AGST130. Credit only granted for: AGST130 or PLSC130.

Fermented foods have played a major role in the transition from nomadic to settled agrarian societies, the establishment of social and religious customs, the expansion of empires, and modern economies. To what extent are our past and current attitudes towards fermented foods rooted in historical and cultural imprints? Explore the central role of fermentation in human history and culture, the basic microbiological processes underlying fermentation processes, and the processes used to produce and distribute fermented foods. Find out how the fruits, grains, and dairy products used to produce fermented foods are grown and selected. Students will learn about the development and modern use of fermented dairy products, pickles, bread, tea, chocolate, wine, beer, distilled liquors, and pharmaceutical/manufactured products.

There will be 5 required live synchronous meetings via Zoom througout the semester. Please see instructor for details. There will be a required live/synchronous meeting on the first week of classes via Zoom on Monday, 8/30/2021 at 5pm. If there is a time change to the meeting time, this will be communicated via ELMS.

0101	Angus Murphy, Wendy Peer M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 60) ESJ 1215 ONLINE	

PLSC201 **Plant Structure and Function**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110 and PLSC111 or (PLSC112 and PLSC113); and CHEM131 and CHEM132.

The relationship between plant structure and function and how the environment influences changes in the physiology to control higher plant growth and development are studied.

0101	Jianhua Zhu MWF 10:00am - 10:50am M 2:00pm - 4:45pm	Seats (Total: 21) PLS 1119 RGC 1111	 Lab
0102	Jianhua Zhu MWF 10:00am - 10:50am W 1:00pm - 3:45pm	Seats (Total: 21) PLS 1119 RGC 1111	 Lab

PLSC203 **Plants, Genes and Biotechnology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: LS General Education: DSNS

Prerequisite: BSCI103 or BSCI105; or (BSCI170 and BSCI171).

An overview of the history, genetics, and reproductive mechanisms for agronomic and horticultural plants that examines mechanisms of genetic improvement ranging from traditional plant breeding to tissue culture and genetic engineering. Social and political issues such as germplasm preservation and international intellectual property rights will also be discussed.

0101	Vijay Tiwari TuTh 2:00pm - 3:15pm	Seats (Total: 23) PLS 1162	

PLSC205 **Introduction to Turf Science and Management**

Credits: 4 Grading Method: Regular General Education: DSNL

Credit only granted for: PLSC205 or PLSC305. Formerly: PLSC305.

Principals of turf science and culture with emphasis on turfgrass anatomy, morphology, and physiology. The role of cultural interventions in achieving specific aesthetic and functional objectives is examined for multiple turf uses. Pest problems typically encountered in turfgrass management are also covered.

0101	Mark Carroll MWF 1:00pm - 1:50pm Tu 3:00pm - 5:00pm	Seats (Total: 22) PLS 1146 PBR 1102	 Lab

PLSC253 **Woody Plants for Mid-Atlantic Landscapes I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC110 and PLSC111.

A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on native deciduous plant materials.

0101	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1119	 Lab
0102	Karen Petroff WF 12:00pm - 12:50pm F 1:00pm - 3:50pm	Seats (Total: 24) PLS 1140 PLS 1153	 Lab

PLSC389 **Internship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

There will be two required real-time sessions, time to be determined. Prerequisite: Permission of AGNR-Plant Science & Landscape Architecture department. Restriction: Junior standing or higher. And must be in Plant Sciences program; or must be in Landscape Architecture program. Deadline to request permission to sign-up for the course is 6/17/2022. See Dr. Mark Carroll for more information. Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

0101	Mark Carroll	Seats (Total: 20)	
	Meets July 6, 2022 - November 2, 2022		
	Class time/details on ELMs	ONLINE	

PLSC399 **Special Problems in Plant Science**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

Contact department for information to register for this course.

PLSC404 **Plant and fungal Metabolism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: BSCI170 and BSCI171; or PLSC201. And CHEM231 and CHEM232; or CHEM237; or permission of AGNR-Plant Science & Landscape Architecture department.

An introduction to biochemistry and metabolism in plants and fungi, covering the biosynthesis of compartments in plant and fungal cells with biological molecules such as nucleic acids, amino acids and lipids. Energy flow processes such as photosynthesis, carbohydrate metabolism and respiration, are covered in the course. The integration of different pathways in plant development and responses to environmental stresses will be discussed.

0101	Yiping Qi	Seats (Total: 20)	
	TuTh 11:00am - 12:15pm	PLS 1168	

PLSC420 **Principles of Plant Pathology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: CHEM131, CHEM132, and PLSC201; or students who have taken courses with comparable content may contact the department.

An introduction to the causal agents, nature and management of plant diseases with particular attention paid to economically important diseases of horticultural and agronomic crops.

0101	Nidhi Rawat	Seats (Total: 18)	
	TuTh 1:00pm - 2:15pm	PLS 1111	
	Tu 2:30pm - 5:15pm	PLS 1153	Lab
0102	Nidhi Rawat	Seats (Total: 18)	
	TuTh 1:00pm - 2:15pm	PLS 1111	
	Th 2:30pm - 5:15pm	PLS 1153	Lab

PLSC433 **Technology of Fruit and Vegetable Production**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PLSC201, PLSC271, and ENST200; or students who have taken courses with comparable content may contact the department. Restriction: Junior standing or higher.

A critical analysis of research work and application of the principles of plant physiology, chemistry and botany to practical problems in the commercial production of fruit and vegetable crops.

Students must pay a $100.00 lab fee.

0101	Diana Cochran	Seats (Total: 10)	
	MW 11:00am - 12:15pm	PLS 1119	
	W 1:00pm - 4:50pm	PLS 0123	Lab

PLSC453 Weed Science

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Weed identification, ecology, and control (cultural, mechanical, biological, and chemical methods).

Labs will also occur in the Research Greenhouse.

0101	Bill Phillips	Seats (Total: 24)	
	Class time/details on ELMs	ONLINE	
	Th 9:30am - 10:45am	ONLINE	
	Tu 11:00am - 12:50pm	PLS 1153	Lab
0102	Bill Phillips	Seats (Total: 13)	
	Class time/details on ELMs	ONLINE	
	Th 9:30am - 10:45am	ONLINE	
	Th 11:00am - 12:50pm	PLS 1153	Lab

PLSC489L Special Topics in Plant Science; Scientists Teaching and Translating Science

Credits: 2 Grading Method: Regular

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Explore methods in pedagogy and andragogy to facilitate science learning Development of teaching philosophy, outreach teaching skills and review of current literature on instruction in science fields.

0101	Melissa Welsh	Seats (Total: 30)	
	W 10:00am - 11:50am	PLS 2137	

PLSC489R Special Topics in Plant Science; Data Wrangling and Visualization with R

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.

Students will learn the fundamentals of using R to handle, summarize and plot data in ways that are repeatable and transparent through a combination of lecture, hands-on demonstrations, and exercises. Using the approaches and philosophy of the Tidyverse you will learn workflow and coding habits that will help transform your ability to understand your data and communicate it to others. Through this course you will be fluent in the basic vocabulary and grammar of R.

0101	Maile Neel	Seats (Total: 24)	
	MW 9:00am - 9:50am	PLS 2137	
	M 10:00am - 10:50am	PLS 2137	Discussion

PLSC608 **Research Methods**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

Prerequisite: permission of department. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: AGRO608, NRSC608, or PLSC608. Formerly NRSC608.

0101	James Culver, Shunyuan Xiao	Seats (Total: 20)	
	M 3:30pm - 5:30pm	PLS 1162	

PLSC608T **Research Methods; Supervised Teaching**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

An overview of research methods and applications related to plant sciences. Topics covered include current research advances, professional conduct and ethics, and preparation of grant proposals, manuscripts, and scientific presentations.

Prerequisite: permission of department.

0103	Angus Murphy	Seats (Total: 5)
	Contact instructor or department for details.	
0104	Mark Carroll	Seats (Total: 5)
	Contact instructor or department for details.	
4401	Bill Phillips	Seats (Total: 5)
	Contact instructor or department for details.	

7501	Wendy Peer	Seats (Total: 5)
	Contact instructor or department for details.	

PLSC689G **Special Topics; The Plant Metabolome-Microbiome Connection**

Credits: 1 Grading Method: Regular

Credit according to time scheduled and organization of the course. Organized as a lecture series on a specialized advanced topic.

Plant microbiomes are dynamic microbial communities that are specific to the rhizosphere and phyllosphere. These microbial assemblages shift in response to plant biotic interactions and abiotic stresses and assist plants in nutrient acquisition, plant defense and stress tolerance. This special topics course will discuss recent advances in linking the plant metabolome to the microbiome and explore how plant metabolites impact microbe interactions, to better understand the relationship between microbiomes and their plant hosts.

0101	Shirley Micallef	Seats (Total: 10)
	W 3:00pm - 3:50pm	PLS 1162

PLSC799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PLSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PLSC899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

PORT Portuguese Fall 2022

PORT103 **Intensive Elementary Portuguese**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Credit only granted for: PORT103 or PORT104. Formerly: PORT104.

Covers speaking, reading, writing, listening, and culture of Portuguese-speaking world.

0101	Barbara Zocal Da Silva	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	JMZ 1120
	W 11:00am - 11:50am	JMZ 1120

PORT205 **Intermediate Reading and Conversation in Portuguese I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: PORT203; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Development of spoken Portuguese at intermediate level based on written assignments and exams on readings in a variety of genres.

0101	Thayse Lima TuTh 3:30pm - 4:45pm	Seats (Total: 15) JMZ 2125

PORT234 Issues in Latin American and Caribbean Studies I

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with: LACS234, SPAN234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0103
0102	Carolina Sampo TuTh 2:00pm - 3:15pm	Seats (Total: 30) VMH 1207

PORT386 Experiential Learning

(Perm req)

Credits: 3-6 | Grading Method: Regular, Pass-Fail

Restriction: Permission of ARHU-School of Languages, Literatures, and Cultures department; and junior standing or higher.

Contact department for information to register for this course.

PORT399 Independent Study in Portuguese

(Perm req)

Credits: 1-3 | Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature under the supervision of a faculty member of the department.

Contact department for information to register for this course.

PORT699 Independent Study of Portuguese

Credits: 1-3 | Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

PSYC Psychology Fall 2022

The following courses may involve the use of animals. Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available. The Department of Psychology enforces course prerequisites. Students who do not meet the course prerequisites will be administratively dropped from the course.

PSYC100 Introduction to Psychology

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: SB	General Education: DSHS, DSNS

A basic introductory course intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Discussion sections do not meet until after first lecture. Research requirement: may involve participation in research.

Click here for more course information.

0101	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 8:00am - 8:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1238 ONLINE	 Discussion Discussion
0102	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1238 ONLINE	 Discussion Discussion
0103	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion

0104	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0105	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 3:00pm - 3:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0106	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 8:00am - 8:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1238 ONLINE	 Discussion Discussion
0107	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1238 ONLINE	 Discussion Discussion
0108	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion
0109	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 2:00pm - 2:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0110	Benjamin Jones	Seats (Total: 30)	
	W 4:00pm - 5:20pm Class time/details on ELMs F 3:00pm - 3:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion

0201	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 9:00am - 9:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0202	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 10:00am - 10:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion
0203	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0204	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 12:00pm - 12:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion
0205	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 3:00pm - 3:50pm Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion
0206	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 9:00am - 9:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 1236 ONLINE	 Discussion Discussion
0207	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm Class time/details on ELMs F 10:00am - 10:50am Class time/details on ELMs	BRB 1101 ONLINE BPS 0283 ONLINE	 Discussion Discussion

0208	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 11:00am - 11:50am	BPS 1236	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0209	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 12:00pm - 12:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0210	Abigail Nicolas	Seats (Total: 30)	
	Th 3:30pm - 4:50pm	BRB 1101	
	Class time/details on ELMs	ONLINE	
	F 3:00pm - 3:50pm	BPS 0283	Discussion
	Class time/details on ELMs	ONLINE	Discussion
0301	Dirk Parham	Seats (Total: 40)	
	MW 2:00pm - 2:50pm	ONLINE	
	Class time/details on ELMs	ONLINE	
FC01	Heather Ganginis DelPino	Seats (Total: 40)	
	F 1:00pm - 2:40pm	BPS 0283	
	Class time/details on ELMs	ONLINE	Discussion
	Restricted to students in Freshmen Connection.		
FC02	Heather Ganginis DelPino	Seats (Total: 40)	
	TuTh 4:30pm - 5:45pm	BPS 1236	
	Restricted to students in Freshmen Connection.		
FC03	Rachel VanDaalen	Seats (Total: 40)	
	MW 6:00pm - 7:15pm	JMZ 2206	
	Restricted to students in Freshmen Connection.		
FC04	Rachel VanDaalen	Seats (Total: 40)	
	MW 7:30pm - 8:45pm	JMZ 2206	
	Restricted to students in Freshmen Connection.		

PSYC123 The Psychology of Getting Hired

Credits: 1 Grading Method: Regular

Restriction: Must not be in a Robert H. Smith School of Business degree program. Additional information: Cannot be used in place of BMGT367 toward a degree program in the Robert H. Smith School of Business.

Designed to introduce students to the science behind the hiring process and to prepare individuals with the academic and practical training required. Together we will explore psychological principles that influence the selection process and how individuals can apply them for the competitive edge that makes others Fear the Turtle!

0101	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0201	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0301	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	
0401	Erica Ely Class time/details on ELMs	Seats (Total: 100) ONLINE	

PSYC200 **Statistical Methods in Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: PSYC100; and 1 course with a minimum grade of C- from (STAT100, MATH107, MATH111, MATH120, MATH130, MATH136, or MATH140). Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

A basic introduction to quantitative methods used in psychological research.

Restricted to PSYC, ENSP, BSCI, and NEUR majors.

Click here for sample course syllabus.

0101	Tracy Tomlinson TuTh 8:00am - 9:15am M 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1238 ONLINE	 Discussion Discussion
0102	Tracy Tomlinson TuTh 8:00am - 9:15am M 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1228 ONLINE	 Discussion Discussion

0103	Tracy Tomlinson TuTh 8:00am - 9:15am M 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1243 ONLINE	 Discussion Discussion
0104	Tracy Tomlinson TuTh 8:00am - 9:15am M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 0283 ONLINE	 Discussion Discussion
0105	Tracy Tomlinson TuTh 8:00am - 9:15am M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1228 ONLINE	 Discussion Discussion
0201	Tracy Tomlinson TuTh 9:30am - 10:45am M 9:00am - 9:50am Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1228 ONLINE	 Discussion Discussion
0202	Tracy Tomlinson TuTh 9:30am - 10:45am M 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1232 ONLINE	 Discussion Discussion
0203	Tracy Tomlinson TuTh 9:30am - 10:45am M 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1232 ONLINE	 Discussion Discussion
0204	Tracy Tomlinson TuTh 9:30am - 10:45am M 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1228 ONLINE	 Discussion Discussion
0205	Tracy Tomlinson TuTh 9:30am - 10:45am M 1:00pm - 1:50pm Class time/details on ELMs	Seats (Total: 28) BPS 1250 BPS 1236 ONLINE	 Discussion Discussion

PSYC202 **Introduction to Neuroscience**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS

Prerequisite: Minimum grade of C- in BSCI170 and BSCI171. Cross-listed with: NEUR200. Credit only granted for: PSYC309U, NEUR200, PSYC202 or PSYC301. Formerly: PSYC309U.

In an evolutionary sense, the job of the nervous system is to produce, control, and coordinate behaviors that help an animal survive and reproduce. Neuroscience is the study of how the nervous system does that. Provides a broad introduction to neuroscience, always keeping the behavioral consequences in view.

0101	Ana Navarro Cebrian TuTh 12:30pm - 1:45pm	Seats (Total: 100) BPS 1243	
0201	Ana Navarro Cebrian TuTh 2:00pm - 3:15pm	Seats (Total: 100) BPS 1243	

PSYC221 Social Psychology

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, DSSP

Prerequisite: PSYC100.

The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, personal perception, interpersonal attraction, and group behavior.

Click here for sample course syllabus.

0101	Abigail Nicolas MW 1:00pm - 1:50pm F 1:00pm - 1:50pm	Seats (Total: 150) BPS 1250 BPS 1250	 Discussion
0201	Abigail Nicolas TuTh 11:00am - 12:15pm	Seats (Total: 150) ESJ 2208	
0301	Dirk Parham TuTh 9:30am - 10:45am	Seats (Total: 45) ONLINE	
0401	Dirk Parham TuTh 12:30pm - 1:45pm	Seats (Total: 42) ONLINE	
FC01	Abigail Nicolas Tu 4:30pm - 5:45pm F 11:30am - 12:45pm Class time/details on ELMs	Seats (Total: 40) BPS 1238 ONLINE ONLINE	 Discussion Discussion

PSYC232 Psychology of Racism

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Limited to Psychology majors; if spaces remain in the course, will open to all majors.

Explores the causes, correlates, and consequences of racial prejudice in the United States and other national contexts. Using lecture, readings, and discussion, we will examine the psychological theory and research on what processes underlie and motivate racial prejudice; how racial prejudice is experienced by its targets; how racial prejudice pervades our culture and social institutions; and how racial prejudice is learned, maintained, and ultimately changed.

0101	Linda Zou MW 3:00pm - 4:15pm	Seats (Total: 40) PHY 2214

PSYC234 Living the Good Life: The Psychology of Happiness

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

Credit only granted for: PSYC234 or PSYC289D. Formerly: PSYC289D.

What are the secrets to living a happy life? Can happiness be found within the context of war, a depressed economy, violence and other major stressors? Are some people born happier than others? This course will teach you the scientific process that psychologists use to study happiness (and related emotional variables) and give you the opportunity to practice applying that process in a number of ways. You will learn how we (a) gather and critically evaluate research findings in the existing literature, (b) integrate those findings into coherent and testable theories, (c) design and conduct valid scientific research that tests those theories and extends our knowledge, and (d) effectively communicate our theories and findings to a wide range of audiences. The result of the process is a more accurate and objective understanding of happiness, and that is what prepares you to apply your scientific understanding to explain and influence a wide range of outcomes.

0101	Carole Sebenick TuTh 2:00pm - 3:15pm	Seats (Total: 139) JMZ 0220
0201	Carole Sebenick TuTh 9:30am - 10:45am	Seats (Total: 78) JMZ 0220
FC01	Heather Ganginis DelPino TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 40) BPS 1236

PSYC262 Asian American Psychology

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: AAST262. Credit only granted for: PSYC262, AAST262 or PSYC489Z. Formerly: PSYC489Z.

An overview of how socio-cultural influences impact the development and psychological health of Asian Americans. Other topics include how minority group status, adaptation and identity development influence various aspects of psychological functioning; the role of historic systematic racism; and, how the COVID-19 pandemic has negatively impacted Asian Americans. Students develop a deeper understanding of the role of stereotypes and racism, acculturation, racial identity development, cultural values, gender socialization, behavioral norms, family roles, stressors and social support systems on the mental health, well-being and health of Asian Americans.

0101	Derek Iwamoto TuTh 12:30pm - 1:45pm	Seats (Total: 60) JMP 3201	

PSYC300 **Research Methods in Psychology Laboratory**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSSP

Prerequisite: PSYC200. Restriction: Must be in Psychology program.

A general introduction and overview to the fundamental theoretical, conceptual, and practical issues in psychological research in both the laboratory and the field.

Restricted to PSYC and NEUR majors only.

0101	Amanda Chicoli MW 10:00am - 10:50am F 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 BPS 1232	Discussion
0102	Amanda Chicoli MW 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 HBK 0125	Discussion
0103	Amanda Chicoli MW 10:00am - 10:50am W 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 BPS 1232	Discussion
0104	Amanda Chicoli MW 10:00am - 10:50am Th 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 BPS 1232	Discussion
0105	Amanda Chicoli MW 10:00am - 10:50am F 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 PLS 1111	Discussion

0106	Amanda Chicoli MW 10:00am - 10:50am W 4:00pm - 5:50pm	Seats (Total: 16) HJP 0226 BPS 1228	Discussion
0201	Ana Navarro Cebrian TuTh 9:30am - 10:45am Th 4:00pm - 5:50pm	Seats (Total: 16) IRB 0318 BPS 1238	Discussion
0202	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 10:00am - 11:50am	Seats (Total: 16) IRB 0318 ATL 0201	Discussion
0203	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) IRB 0318 ATL 1106	Discussion
0204	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 2:00pm - 3:50pm	Seats (Total: 16) IRB 0318 BPS 1238	Discussion
0205	Ana Navarro Cebrian TuTh 9:30am - 10:45am W 4:00pm - 5:50pm	Seats (Total: 16) IRB 0318 SPH 0305	Discussion
0206	Ana Navarro Cebrian TuTh 9:30am - 10:45am F 12:00pm - 1:50pm	Seats (Total: 16) IRB 0318 BPS 1238	Discussion
0301	Amanda Chicoli Class time/details on ELMs W 2:00pm - 3:50pm	Seats (Total: 16) ONLINE HBK 0125	Discussion
0302	Amanda Chicoli Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 16) ONLINE BPS 1232	Discussion
0303	Amanda Chicoli Class time/details on ELMs F 2:00pm - 3:50pm	Seats (Total: 16) ONLINE HBK 0125	Discussion

0304	Amanda Chicoli	Seats (Total: 16)	
	Class time/details on ELMs F 2:00pm - 3:50pm	ONLINE HBK 0108	Discussion

PSYC302 **Fundamentals of Learning and Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, BSCI170, and BSCI171. Restriction: Restricted to psychology majors during the registration period; all other majors will be placed on a hold file.

Overview of the fundamental types of learning that occur without formal instruction. The course covers fundamentals of classical and instrumental conditioning as studied in a variety of species in addition to more modern theories of learning. We will then explore how these principles influence diverse processes such as memory, attention, extinction, categorization, motivation, and in some cases, how they are implemented in the brain and disrupted in disease.

0101	Amanda Chicoli	Seats (Total: 50)
	TuTh 2:00pm - 3:15pm	HBK 0115

PSYC303 **Professional Development for Psychology Majors**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC123; or permission from the instructor with a completed resume. Restriction: Must have earned a minimum of 60 credits; and must be in the Psychology major.

An investigation of various career and graduate school opportunities available to psychology majors. Students will learn about a wide range of career fields, will learn how to utilize available resources to pursue career goals, and will take steps to advance their professional identity and development.

0101	Steven Young	Seats (Total: 40)
	Class time/details on ELMs	ONLINE

PSYC304 **Biological Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSNS

Prerequisite: PSYC100, BSCI170 and BSCI171; or equivalent. Credit only granted for: PSYC301 or PSYC304. Formerly: PSYC301.

Biological Psychology is the study of the physiological basis of behavior. In this course, we will first cover the basic principles of brain organization and neural transmission. We will then introduce traditional and modern research techniques in the field of behavioral neuroscience. The last portion of the course focuses on specific topics including psychopharmacology, learning and memory, emotion, stress, drug of abuse, neurological disorders (e.g., Alzheimer's disease and Parkinson's disease) and schizophrenia.

0101	Adam Brockett	Seats (Total: 117)
	TuTh 9:30am - 10:45am	ATL 2324

PSYC309F **Special Topics in Psychology; PREP FOR NEXT STEPS**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

0101	Nazish Salahuddin	Seats (Total: 20)
	W 1:00pm - 1:50pm	BPS 1238

PSYC330 **Child Psychopathology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program. Credit only granted for: PSYC309B or PSYC330. Formerly: PSYC309B.

Etiology, diagnosis, prevention and treatment of emotional disorders of childhood and adolescence.

0101	Andrea Chronis-Tuscano	Seats (Total: 100)
	TuTh 11:00am - 12:15pm	PLS 1140

PSYC332 **Psychology of Human Sexuality**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

Contact department for information to register for this course.

PSYC336 **Psychology of Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100. Cross-listed with: WGSS336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

Click here for sample course syllabus.

0101	Monica Kearney	Seats (Total: 110)
	MW 11:00am - 11:50am Class time/details on ELMs	BRB 1101 ONLINE

PSYC338D **Special Topics in Study Abroad III; Developmental Disorders**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338L **Special Topics in Study Abroad III; Dynamic Project Leadership**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338N **Special Topics in Study Abroad III; Neuroscience of Fear**

Credits: 3 Grading Method: Regular

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC338P **Special Topics in Study Abroad III; Positive Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

PSYC341 **Introduction to Memory and Cognition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300.

An introduction to the basic concepts of cognitive psychology, the scientific study of mental processes. Topics will include perception, attention, memory, reasoning, and language, with an emphasis on how findings from cognitive psychology can inform real-life thinking (e.g., memory strategies for studying, pitfalls of multitasking, and how/why our memories can fail us).

Click here for sample course syllabus.

0101	David Martinez	Seats (Total: 117)
	TuTh 12:30pm - 1:45pm	BPS 1250

PSYC344 **Health Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; or permission of instructor. Restriction: Must be in the Psychology program; or must be in a major within the School of Public Health; or permission of instructor. Credit only granted for: PSYC489U or PSYC344. Formerly: PSYC489U.

An examination of how psychological, biological, and social factors impact physical health and well-being. Students will use the biopsychosocial model to analyze topics including stress, health disparities, pain, addiction, disease states (e.g., cardiovascular disease, diabetes, cancer), and primary prevention.

0101	Rachel VanDaalen	Seats (Total: 75)	
	MW 3:00pm - 3:50pm Class time/details on ELMs	ESJ 1215 ONLINE	Discussion

PSYC353 **Adult Psychopathology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Must be in Psychology program.

The nature, diagnosis, etiology, and treatment of mental disorders.

Click here for sample course syllabus.

0101	Rachel VanDaalen	Seats (Total: 117)
	TuTh 3:30pm - 4:45pm	ESJ 1202

PSYC354 **Multicultural Psychology in the U.S.**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D General Education: DSHS

Prerequisite: PSYC100.

What are the psychological implications of racism, sexism, homophobia and other structures of inequality in the United States? How do socio-cultural privilege and oppression influence individual and group thoughts, feelings, and behaviors? This course will take a current events focus to understanding multicultural and social justice issues in psychology with an emphasis on self-reflection, mental health, cross-cultural communication, and strategies for social change.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

Click here for sample course syllabus.

0101	Monica Kearney MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 150) ESJ 1224 ONLINE

PSYC355 **Developmental Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.

Click here for sample course syllabus.

0101	Fanita Tyrell TuTh 11:00am - 12:15pm	Seats (Total: 115) LEF 2205
0201	Arianna Gard MW 4:00pm - 5:15pm	Seats (Total: 115) BPS 1250

PSYC361 **Survey of Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100.

A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization); organizational psychology (motivation, leadership, job attitudes); productivity in the workplace (performance appraisal, absenteeism, turnover), and the role that the larger environment plays in influencing work behaviors and work attitudes.

Click here for sample course syllabus.

0101	Joshua Strauss TuTh 9:30am - 10:45am	Seats (Total: 75) SYM 0200

PSYC381 **Community Interventions: Domestic Violence I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100. Restriction: Preference given to majors in Human Development, Psychology, and Women, Gender and Sexuality Studies. Credit only granted for: PSYC318D, PSYC381, WMST498A or WGSS498A. Formerly: PSYC318D. Additional information: Students who successfully complete this course may be eligible to enroll in PSYC319 - a service learning class in which students volunteer in the community to work with children who have experienced domestic violence and/or homelessness.

Study theories and research related to the dynamics and effects of intimate partner violence on women and children. Learn about community resources and interventions for survivors of domestic violence. Examine theoretical writings and research findings regarding the effects of gender, culture, race/ethnicity, and socioeconomic status on the experiences of intimate partner violence survivors and their children.

0101	Karen O'Brien	Seats (Total: 35)
	MW 10:30am - 11:45am	BPS 1236

PSYC389 **Experiential Learning**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Internship in psychology-related fields.

A course for undergraduate psychology majors to earn academic credit for an approved psychology-related internship experience. Information about the course may be obtained in BPS1121, or by contacting the instructor. Restricted to PSYC majors only.

0101	Steven Young	Seats (Total: 15)
	Class time/details on ELMs	ONLINE

PSYC403 **Animal Behavior**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC202 or NEUR200.

Reviews the theoretical framework underlying the study of animal behavior. The genetic, hormonal and physiological basis of behavior, and the relation to ecological and evolutionary processes will be discussed using examples that range from invertebrate animals to humans.

Restricted to PSYC and NEUR majors only.

Contact department for information to register for this course.

PSYC404 **Introduction to Behavioral Pharmacology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC202 or NEUR200. Restriction: Must be in Psychology program.

Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

Restricted to PSYC and NEUR majors only.

0101	Ana Navarro Cebrian TuTh 11:00am - 12:15pm	Seats (Total: 50) BPS 1236	

PSYC407 **Behavioral Neurobiology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300; and (PSYC202 or NEUR200). Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

How does the nervous system control behavior? We will address this question using simple behavioral experiments combined, in some exercises, with microsurgery and electrode recordings in the nervous system. Concepts studied will include CNS plasticity, the role of proprioception in controlling movement, cortical processing and myth multitasking, sensory resolution by measuring receptive field sizes, activity of simple neural circuits controlling escape from predators, and the effects of neuromodulators on aggression. Animals used are all invertebrates.

Click here for sample course syllabus.

0101	Matthew Roesch M 9:00am - 9:50am W 9:00am - 12:00pm	Seats (Total: 8) BPS 1232 BPS 0263	 Lab
0201	Matthew Roesch M 9:00am - 9:50am F 9:00am - 12:00pm	Seats (Total: 8) BPS 1232 BPS 0263	 Lab
0301	Matthew Roesch M 9:00am - 9:50am F 1:00pm - 4:00pm	Seats (Total: 8) BPS 1232 BPS 0263	 Lab

PSYC409 **Topics in Neurosciences Seminar**

(Perm req)

Credits: 1 Grading Method: Regular

Current research in neurosciences will be presented, read, and discussed. Emphasis will change each term.

For students in the neuroscience minor. Research presentations on selected topics in neuroscience. Review and discussion of background readings related to research presentations take place on alternate weeks. Restricted to students in the neuroscience minor.

0101	Amanda Chicoli	Seats (Total: 40)
	W 3:00pm - 4:50pm	BPS 0283

PSYC411 **Introduction to Functional Magnetic Resonance Imaging**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300; and (PSYC202 or NEUR200). Restriction: Must be in a major within BSOS-Psychology department. Credit only granted for: NACS728F or PSYC411.

An introduction to functional magnetic resonance imaging (fMRI). Students will be taught about formulating testable hypotheses with fMRI, utilizing basic methods in fMRI studies, and understanding existing limitations of fMRI studies in the literature.

0101	Luiz Pessoa	Seats (Total: 20)
	TuTh 11:00am - 12:15pm	PLS 1111

PSYC417 **Data Science for Psychology and Neuroscience Majors**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200 and PSYC300; and (MATH120, MATH130, or MATH140). Credit only granted for: PSYC489D or PSYC417. Formerly: PSYC489D.

A large number of industry and academic jobs require basic programming and data analysis skills. This class represents an introduction to both. Students will learn to program in R and will briefly be introduced to Python, the two most popular programming languages for data science. Common constructs shared by a variety of procedural programming languages will be emphasized. Basic statistics and probability theory will be reviewed from a computational perspective, and more advanced topics introduced. During the course, students will simulate toy data sets which they will then analyze knowing how the data came about, as well as work with real data. The class is highly hands-on with a large number of in-class lab and homework projects. Expect to work a lot and move quickly. Because of the hands-on nature of the class, the overall focus is more on application and execution rather than theory. However, some theory is covered at a high level so that students are aware of why they are doing something, rather than mindlessly writing code.

Restricted to PSYC and NEUR majors only.

0101	Alec Solway	Seats (Total: 24)
	MW 1:00pm - 3:00pm	HJP 2217

PSYC420 **Experimental Psychology: Social Psychology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC221. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A laboratory course to provide a basic understanding of experimental methods in social psychology and experience in conducting research on social processes.

Click here for sample course syllabus.

0101	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 13) BPS 1238 HBK 1108	 Lab
0102	Edward Lemay MW 11:00am - 11:50am Th 2:00pm - 3:50pm	Seats (Total: 12) BPS 1238 HBK 1108	 Lab

PSYC425 **Psychology and Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, PSYC200, and PSYC300. Restriction: Must be in Psychology program. Credit only granted for: PSYC325, or PSYC425.

An introduction to the intersection of psychology and the criminal justice system, known as the field of legal psychology. The material covered will span the course of the criminal justice process and examine each aspect from a psychological perspective beginning with profiling and moving on to eyewitness memory and judgements through perpetrator memories and interrogation techniques. These aspects will be evaluated with a research lens as well as an applied outlook.

0101	Tracy Tomlinson TuTh 12:30pm - 1:45pm	Seats (Total: 30) BPS 1232	

PSYC432 **Counseling Psychology: Theories, Research, and Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC200.

Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

Note: Students will be expected to engage in asynchronous coursework Friday's during the semester.

Click here for sample course syllabus.

0101	Nazish Salahuddin MW 10:00am - 10:50am Class time/details on ELMs	Seats (Total: 75) ESJ 1215 ONLINE	 Discussion

0201	Monica Kearney, Erin Hill MW 2:00pm - 2:50pm Class time/details on ELMs	Seats (Total: 75) ESJ 1215 ONLINE	Discussion

PSYC433 **Basic Helping Skills: Research and Practice**

Credits: 4 Grading Method: Regular

Prerequisite: PSYC300. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits; and must not have completed or be concurrently enrolled in EDCP 310. Credit only granted for: EDCP210, EDCP310, or PSYC433.

Theories and research regarding effective helping relationships, with a focus on applications to counseling and psychotherapy. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class. Attendance in labs is mandatory and contributes to the course grade; thus, students should only enroll in a lab section that they will be able to attend consistently.

Click here for sample course syllabus.

0101	Monica Kearney Tu 2:00pm - 3:50pm W 9:00am - 10:50am	Seats (Total: 12) ESJ 2204 BPS 1228	Lab
0102	Monica Kearney Tu 2:00pm - 3:50pm W 11:00am - 12:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	Lab
0103	Monica Kearney Tu 2:00pm - 3:50pm Th 4:00pm - 5:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	Lab
0104	Monica Kearney Tu 2:00pm - 3:50pm W 3:00pm - 4:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	Lab
0105	Monica Kearney Tu 2:00pm - 3:50pm Th 2:00pm - 3:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	Lab
0106	Monica Kearney Tu 2:00pm - 3:50pm F 9:00am - 10:50am	Seats (Total: 12) ESJ 2204 BPS 1234	Lab

0107	Monica Kearney Tu 2:00pm - 3:50pm F 11:00am - 12:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	 Lab
0108	Monica Kearney Tu 2:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 12) ESJ 2204 BPS 1234	 Lab
0109	Monica Kearney Tu 2:00pm - 3:50pm F 1:00pm - 2:50pm	Seats (Total: 12) ESJ 2204 BPS 1228	 Lab

PSYC436 **Introduction to Clinical Psychology: From Science to Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300.

Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

Click here for sample course syllabus.

0101	Andres De Los Reyes MWF 11:00am - 11:50am	Seats (Total: 75) ESJ 2212

PSYC437 **The Assessment and Treatment of Addictive Behaviors**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100; and 9 credits in PSYC courses.

Explores the current research in assessment and treatment of addictive behaviors. Topics may include addictions in the areas of alcohol, drugs, nicotine, gambling, and eating.

This course focuses on issues surrounding diversity and the interactions of stigmatized and non-stigmatized individuals, with an emphasis on the context of work. We will cover issues related to diversity and discri- mination from several different perspectives, including: the person(s) being stigmatized, the person(s) doing the stigmatizing, the bystander(s) witnessing stigmatization of others, and the organization.

0101	Edward Bernat MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 50) HBK 0115 ONLINE

0201	Edward Bernat	Seats (Total: 80)	
	MW 1:00pm - 1:50pm Class time/details on ELMs	MCB 1207 ONLINE	

PSYC440 **Experimental Psychology: Cognitive Processes and Legal Applications**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC100, PSYC200, PSYC300 and PSYC341. Restriction: Must be in Psychology program; and must have earned a minimum of 85 credits.

A survey of the content, models, and methods in cognitive psychology with an emphasis on attention and encoding, recall, recognition, judgment, signal detection theory, and applying cognitive theories to situations in the legal system. Students integrate scientific theories with real-life legal situations. Course topics include research methodology in assessing and addressing cognitive mechanisms and how this understanding may help eyewitness and victim recall and recognition, perpetrator recall, assessing scientific theories of repression, and real life examples.

0101	Tracy Tomlinson	Seats (Total: 24)	
	TuTh 2:00pm - 3:15pm W 1:00pm - 4:00pm	BPS 1232 BPS 1232	 Lab

PSYC442 **Psychology of Language**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC300 and PSYC341. Restriction: Must be in Psychology program.

Introductory survey of the psychology of language, focusing on the cognitive processes that enable us to produce and understand language. Topics include speech perception, speech production, syntactic processing, language development, language disorders, and the brain bases of language.

Contact department for information to register for this course.

PSYC450 **Applying Psychology to the Workplace: Industrial Organizational Psychology Laboratory**

Credits: 4 Grading Method: Regular, Pass-Fail

Prerequisite: PSYC300.

In this laboratory course, students use data analytic techniques, along with psychology theories and principles, to solve problems and provide recommendations to mock organizations. Along with learning theories in industrial-organizational psychology and statistical analysis, students will improve personal presentation skills that promote effective communication of information.

0101	Benjamin Jones	Seats (Total: 15)	
	MW 10:00am - 10:50am F 10:00am - 11:50am	BPS 1238 BPS 1228	 Lab

0102	Benjamin Jones MW 10:00am - 10:50am F 12:00pm - 1:50pm	Seats (Total: 10) BPS 1238 BPS 1236	 Lab
0201	Benjamin Jones MW 2:00pm - 2:50pm Th 10:00am - 11:50am	Seats (Total: 13) BPS 1238 ATL 2330	 Lab
0202	Benjamin Jones MW 2:00pm - 2:50pm Th 12:00pm - 1:50pm	Seats (Total: 12) BPS 1238 ATL 1106	 Lab

PSYC460 **Psychological Foundations of Personnel Selection and Training**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: PSYC361 and PSYC200.

An examination of issues and processes involved in the design and evaluation of personnel selection and training programs in a variety of organizational settings: job, person and organizational analysis; organizational choice; development of predictors; evaluation of instructional and training systems; criteria for performance evaluation, promotion and training.

0101	Emily Forgo TuTh 11:00am - 12:15pm	Seats (Total: 40) BPS 0283

PSYC468H **Field Experience and Special Assignments in Honors**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

Contact department for information to register for this course.

PSYC469H **Honors Thesis Proposal Preparation**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC478 **Independent Study in Psychology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Information about independent study may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC479 **Special Research Problems in Psychology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Information about research credit may be obtained in BPS 1121. Restricted to PSYC majors (20010) only. The student must have completed 9 hours in PSYC with at least a 3.0 GPA in PSYC and a 2.8 overall GPA.

Contact department for information to register for this course.

PSYC489A **Advanced Special Topics in Psychology; The Nature and Biological Bases of Emotion**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Restricted to PSYC majors and NEUR majors on the Behavioral and Cognitive track. Multidisciplinary exploration of the current state of our scientific understanding of emotional states and traits, their biological roots, and their relevance to psychiatric disease, with a major focus on anxiety disorders, depression, and addiction. We will cover foundational knowledge in neuroscience and genetics, strengths and weaknesses of popular methods, classic and cutting-edge empirical work, and ongoing conceptual debates. We will discuss crucial discrepancies between the ways in which scientists, laypeople, and Hollywood conceptualize emotions. In addition to human neuroimaging and genomic-association studies, we will explore biological research that affords causal insights, including animal models, acute pharmacological challenges, neurofeedback, brain stimulation, and case studies of patients with circumscribed neural insults.

0101	Alexander Shackman	Seats (Total: 75)
	MW 5:30pm - 6:45pm	BPS 1250

PSYC489G **Advanced Special Topics in Psychology; Hormones and Behavior**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Treatment of a specialized topic in psychology.

Prerequisite: C- or better in BSCI330, NEUR200, or PSYC202. Cross-listing with BSCI338N. Credit only granted for BSCI338N or PSYC489G. A comprehensive overview of the field of behavioral endocrinology, the study of the relationship between hormones and behavior, from a psychobiological perspective. Examine the major mammalian endocrine systems, how hormones influence sex determination, how hormones underlie sex differences in brain structure and function, the role of hormones in parental and social behaviors, mood disorders, homeostasis, cognition, and stress. Both normal and abnormal hormonal pathologies will be discussed. Due to the physiological and experimental perspectives, much of the phenomenology will be based on research in species other than humans. This species comparative approach will reveal interesting "ways of doing things" that are intriguingly different from how "humans do things."

0101	Mary Ann Rankin	Seats (Total: 35)	
	TuTh 3:30pm - 4:45pm	PLS 1119	

PSYC499H **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

In addition to the department and instructor, the director of the honors program may be contacted to obtain a section number. Prerequisite: permission of the thesis advisor. Permission may be obtained in BPS 1147. Restricted to undergraduate PSYC majors only.

Contact department for information to register for this course.

PSYC601 **Quantitative Methods I**

(Perm req)

Credits: 4 Grading Method: Regular, Audit

Prerequisite: PSYC200; or students who have taken courses with comparable content may contact the department.

A basic course in quantitative/mathematical analysis and statistical methods in psychology with an emphasis on conceptual understanding. Topics include issues in measurement, probability theory, statistical inference and hypothesis testing, parameter estimation, bivariate regression, and correlation.

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

0101	Paul Hanges	Seats (Total: 22)	
	TuTh 9:00am - 10:50am	BPS 0283	
	Th 5:00pm - 7:00pm	BPS 0140	Lab

PSYC603 **Introduction to Industrial and Organizational Psychology**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: PSYC603 or PSYC730. Formerly: PSYC730.

Advanced survey of industrial-organizational psychology, including selection, training, motivation, group processes, leadership, organizational psychology, and organizational theory. Readings stressed and seminar time will be used for lectures, discussion and integration of the reading materials.

PCI1	Nikita Arun	Seats (Total: 40)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:00pm - 8:00pm	IRB 2107	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC614 Emotion: From Biological Foundations to Contemporary Debates in the Psychological Sciences

Credits: 3 Grading Method: Regular, Audit

Multidisciplinary exploration of the current state of our scientific understanding of emotional states and traits, their biological roots, and their relevance to psychiatric disease. We will cover foundational knowledge in neuroscience and genetics, strengths and weaknesses of widely used methods, classic and cutting-edge empirical work, and ongoing conceptual debates. We will also discuss crucial discrepancies between the ways in which scientists and laypeople conceptualize emotions. In addition to human neuroimaging and genomic-association studies, we will explore biological research that affords causal insights, including animal models, acute pharmacological challenges, neurofeedback, and brain stimulation approaches, and case studies of patients with circumscribed neural insults.

0101	Alexander Shackman	Seats (Total: 22)
	M 9:00am - 11:45am	BPS 1234

PSYC622 Research Methods in Clinical Psychology

Credits: 3 Grading Method: Regular

Restriction: Permission of instructor. Credit only granted for: PSYC622 or PSYC718. Formerly: PSYC718.

Examines issues and strategies in conceptual systems, designs and methodologies of current research in clinical and community psychology. Readings include critical analyses of published research. Course requirements include preparation of a research proposal for a thesis level study.

PCC1	Christina Danko	Seats (Total: 40)	
	Meets August 29, 2022 - November 18, 2022		
	Tu 6:00pm - 9:10pm	BPS 1238	
	Must be in Clinical Psychological Science (MPS).		

PSYC623 Child Psychopathology

(Perm req)

Credits: 3

Grading Method: Regular, Sat-Fail

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

Examines the scientific and clinical literature relevant to developmental aspects of behavior across the lifespan and normal and pathological behavior in children and adolescents. Issues in developmental psychology and developmental psychopathology and consideration of processes initiated in childhood that manifest as pathology in adulthood are also considered.

0101	Heather Yarger	Seats (Total: 20)
	Tu 12:00pm - 2:30pm	BPS 1140B

PSYC629B **Clinical Laboratory; Assessment Practicum**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Melissa Latham	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629C **Clinical Laboratory; Adult Therapy Practicum**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Jessica Magidson	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC629D **Clinical Laboratory; Child and Adolescent Therapy Practicum**

Credits: 1-3 Grading Method: Sat-Fail

Provides advanced supervised experience in the delivery and supervision of mental health interventions targeted to individuals. Supervised work with clients is required.

0101	Mary Byrne	Seats (Total: 10)
	Contact instructor or department for details.	

PSYC638 **Externship in Professional Psychology**

Credits: 1-3 Grading Method: Sat-Fail

Approved appointment as an extern in a mental health setting.

For PSYC majors only.

0101	Lea Dougherty Contact instructor or department for details.	Seats (Total: 20)
0201	Jonathan Mohr Contact instructor or department for details.	Seats (Total: 20)

PSYC639 Internship in Professional Psychology

Credits: 1 Grading Method: Sat-Fail

This seminar combines involvement with a program approved appointment as an intern in a mental setting with a supervisory review of the training experience.

For PSYC majors only.

0101	Lea Dougherty Class time/details on ELMs	Seats (Total: 20) ONLINE

PSYC643 Ethics and Foundations of Assessment and Clinical Intervention

Credits: 3 Grading Method: Regular

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)). Credit only granted for: PSYC643 or PSYC719. Formerly: PSYC719.

An overview of the ethical and professional issues involved in psychological research, instruction, and practice, with special attention to advocacy and ethical decision making regarding a variety of primary, secondary, and tertiary clinical/community interventions.

0101	Mary Byrne W 1:00pm - 3:30pm	Seats (Total: 20) ATL 2330
PCC1	Andrea Chisolm **Meets August 29, 2022 - November 18, 2022** Tu 6:00pm - 9:10pm *Must be in Clinical Psychological Science (MPS).*	Seats (Total: 35) BPS 1140B

PSYC644 Basic Foundation of Clinical Interventions

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor; and must be in one of the following programs (Psychology (Master's); Psychology (Doctoral)).

General introduction to behavior theory and the basic behavioral principles that underlie behavior therapy. Provides an introduction to the philosophical, theoretical and empirical contributions of basic behavior analysis as they relate to behavior therapy, including examples of how behavior therapy is disconnected from its roots.

PCC1	Andrea Chisolm **Meets August 29, 2022 - November 18, 2022** Th 6:00pm - 9:10pm *Must be in Clinical Psychological Science (MPS).*	Seats (Total: 40) BPS 1140B

PSYC651 **Writing and Critical Thinking**

Credits: 3 Grading Method: Regular

Restriction: Must be enrolled in and have successfully completed all courses in the first 4 terms of the Clinical Psychological Science MPS program.

A capstone experience to integrate knowledge learned throughout the program and improve critical thinking and research writing skills. This will be done through the production of a major research paper in an area relevant to the current or future career goals of the student and by emphasizing critical thinking skills.

PCC1	Christina Danko **Meets August 29, 2022 - November 18, 2022** Th 6:00pm - 9:10pm *Must be in Clinical Psychological Science (MPS).*	Seats (Total: 20) BPS 1238
PCC2	Jack Blanchard **Meets August 29, 2022 - November 18, 2022** Th 6:00pm - 9:10pm *Must be in Clinical Psychological Science (MPS).*	Seats (Total: 20) BPS 1238

PSYC653 **The Business of Evaluation: Research Methods at Work**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: PSYC652. Additional information: Course builds from work completed in PSYC 652. Students are also expected to commit to a two-term long project. Students will work with a non-profit organization or local business to ask and answer a business question for the organization. Students will conclude this project in PSYC 654.

Students will learn about the strengths and weaknesses of commonly employed research methods in business settings, including: longitudinal research, survey and interview (including focus groups) design, and sampling and weighting. Students will design and launch a research study that will answer a pressing business question.

PCI1	Matthew Montei	Seats (Total: 40)
	Meets August 29, 2022 - November 18, 2022	
	M 5:00pm - 8:00pm Class time/details on ELMs	IRB 2107 ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.	

PSYC654 **Advanced Analytical Thinking: Statistical Methods at Work II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC652 and PSYC653. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

Students will delve deeply into issues of interpreting and questioning analytic results. Students will learn how to creatively present empirical results in ways that grab the attention of, and are clear to, a variety of stakeholders. Students will present group projects in two presentations, one to the rest of the class (technical audience) and one to an expert panel of practitioners. Finally, this course will introduce students conceptually to a number of advanced statistical methods, such as meta-analysis and structural equation modeling.

PCI1	Meg O'Neill	Seats (Total: 40)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:00pm - 8:00pm Class time/details on ELMs	ESJ 2212 ONLINE	 Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC660 **Performance Management, Compensation, and Benefits**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

This course draws together content on organizational behavior, selection, assessment, development, employee relations, and compensation, among other topics. Students in this course will learn about how to align organizational reward systems, including selection, development, performance appraisal, feedback, and compensation systems. This course will pull from current organizational research and theory on issues ranging from work motivation, employee retention, and feedback processes to issues of organizational strategy and culture.

PCI1	Kenneth Yusko	Seats (Total: 40)
	Meets August 29, 2022 - November 18, 2022	
	M 5:00pm - 8:00pm Class time/details on ELMs	BPS 1140B ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.	

PSYC661 Practicum in IO Psychology

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC603, PSYC652, PSYC653, and PSYC654. Restriction: Must be in the Master of Professional Studies in Industrial/Organizational Psychology Program.

In this practicum, students will work on IO-related tasks in an organization and will have the opportunity to apply what they have learned in class to real-world problems. Students will write a reflection paper reviewing what skills they have applied - and developed - while completing this practicum.

PCI1	Matthew Montei	Seats (Total: 40)
	Meets August 29, 2022 - November 18, 2022	
	M 5:00pm - 8:00pm Class time/details on ELMs	BPS 1140B ONLINE
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.	

PSYC692 Assessment in Counseling Psychology I

Credits: 3 Grading Method: Regular

Prerequisite: PSYC680. Credit only granted for: PSYC692 or PSYC721. Formerly: PSYC721.

Broad introduction to the construction of psychological tests and measures, and experience in test interpretation, with consideration of historical, legal, ethical, and cultural issues surrounding the assessment process.

0101	Jonathan Mohr	Seats (Total: 10)
	M 1:00pm - 4:00pm	BPS 1232

PSYC700 **Theories and Strategies of Counseling Psychology**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: For Counseling Psychology majors only. Cross-listed with: EDCP700. Formerly: EDCP789J.

Introduction to the professional field, examination of pertinent scientific and philosophical backgrounds, and survey of the major theories, principles, and training models in counseling. Correlated laboratory analogue experiences in dydactic and group interrelationships.

0101	Beth Sperber Richie	Seats (Total: 10)
	M 2:00pm - 4:50pm	BPS 2145

PSYC732 **Selection and Classification Issues in Organizations**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: PSYC603; and (PSYC602; or students who have taken courses with comparable content may contact the department). Or permission of instructor.

Consideration of societal, organizational and individual demands for appropriate use of individual differences in (primarily) initial placement of employees. Recruitment, and selection issues, the role of governmental regulations, and the role of individual factors in individual behavior are considered. Extensive coverage given to fundamental psycho-metric problems and the development of individual and organizational criteria of effectiveness.

PCI1	Kenneth Yusko	Seats (Total: 40)	
	Meets August 29, 2022 - November 18, 2022		
	M 5:00pm - 8:00pm	ESJ 2212	
	Class time/details on ELMs	ONLINE	Discussion
	Must be in the Industrial/Organizational Psychology (MPS). All other graduate students must request permission. Contact oes@umd.edu.		

PSYC798I **Graduate Seminar; Affiliation, Interpersonal Attraction, and Relationships**

Credits: 3 Grading Method: Regular, Audit

A survey of classic and contemporary theories, research, and methods in social psychology of affiliation, attraction, and interpersonal relationships.

0101	Edward Lemay	Seats (Total: 30)
	W 1:30pm - 4:00pm	BPS 1228

PSYC798P **Graduate Seminar; Stereotyping and Prejudice**

Credits: 1-4 Grading Method: Regular, Audit, Sat-Fail

Reviews the topics of stereotyping, prejudice, and discrimination from both perpetrators and targets perspectives. Topics will cover the psychological, social, and cultural processes that contribute to intergroup bias, responses to and consequences of intergroup bias, and how to intervene to reduce intergroup bias and its impact at the individual and structural level.

0101	Linda Zou Tu 2:00pm - 4:30pm	Seats (Total: 20) JMZ 0103

PSYC799 **Master's Thesis Research; MASTERS THESIS RSRCH**

Credits: 1-6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

PSYC888A **Research Methods in Psychology; Developmental Seminar**

Credits: 1-3 Grading Method: Regular, Audit

0101	Jude Cassidy Contact instructor or department for details.	Seats (Total: 10)

PSYC889 **Research Methods in Psychology; Cognitive and Neural Systems Seminar**

Credits: 1 Grading Method: Regular, Audit

0101	Matthew Roesch W 1:00pm - 1:50pm	Seats (Total: 10) BPS 0283

PSYC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

PSYC899 **Doctoral Dissertation Research; Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

For PSYC majors only. For all non-psychology graduate students, written permission of the instructor and department is required.

Contact department for information to register for this course.

RDEV Real Estate Development Fall 2022

RDEV250 **People, Planet, and Profit: Building Sustainable Places**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Cross-listed with: ARCH271. Credit only granted for: ARCH271 or RDEV250.

An introduction to the four disciplines represented in the School: architecture and urban design, community planning, historic preservation, and real estate development, that work to create a more sustainable environment for the future to create a more sustainable environment for the future using our interpretation of the quadruple bottom line: socio-cultural, economic, environmental, and design sustainability. Students will be provided with an understanding of the fundamental scholarship and processes of each of these disciplines and examine the intersections between them. Additionally, they will learn by applying the approaches of the four disciplines through a series of field studies.

0101	Wayne Curtis TuTh 3:30pm - 4:45pm	Seats (Total: 85) ARC 0204

RDEV270 **Tax and Accounting for Real Estate Development**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development; and must not be in a major in the Robert H. Smith School of Business; and must not have completed BMGT210, BMGT220, or BMGT221.

An understanding of key tax and accounting principles and how they impact real estate development for students in the minor in real estate development is the purpose of this course. This course is geared for science, arts and humanities students who otherwise in their major would not take an accounting course as part of their major.

0101	Leslie Mostow Tu 7:00pm - 9:40pm	Seats (Total: 18) ARC 0204

RDEV350 **Real Estate Development: Introduction to Principles, Process, and Practice**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: RDEV250 or ARCH271. Restriction: Must be enrolled in the RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation. Credit only granted for: RDEV150 or RDEV350. Formerly: RDEV150.

An introduction to the basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Marcus Ervin M 7:00pm - 9:40pm	Seats (Total: 30) ARC 1103
0102	Thomas Kaufman M 7:00pm - 9:40pm	Seats (Total: 15) ARC 1101

RDEV450 **Foundations of Real Estate Finance and Investment**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: Must have completed RDEV270 or an approved accounting course with a grade of C- or better; and minimum grade of C- in RDEV350. Restriction: Must be enrolled in RDEV Minor; and permission of ARCH-School of Architecture, Planning, & Preservation.

Real Estate Finance and Investment addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Kathryn Corby W 7:00pm - 9:40pm	Seats (Total: 25) ARC 1103
0102	Thomas Dwyer W 7:00pm - 9:40pm	Seats (Total: 10) ARC 1101

RDEV470 **Real Estate Development Case Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development.

Real Estate Development Case Studies takes the principles learned in RDEV 250, 350 and 450 and takes an in depth look at a selection of local, national and international case studies in residential, commercial office, retail and hospital and critically analyzes the success and failure, short term and long term of the projects.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 15)

RDEV478A **Special Topics in Real Property Development; Market Analysis for Real Property Development**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

RDEV 478 will address one or more current topics in real property with a focus in one or more of the areas of real estate development from planning and entitlements, to design and construction, to market analysis and valuation, to finance and investment, to operations and property management, or social and economic impacts.

0101	Abigail Ferretti M 7:00pm - 9:40pm	Seats (Total: 2) ARC 1105

RDEV478B **Special Topics in Real Property Development; Principles of Urban Design for Real Property Developers**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

RDEV 478 will address one or more current topics in real property with a focus in one or more of the areas of real estate development from planning and entitlements, to design and construction, to market analysis and valuation, to finance and investment, to operations and property management, or social and economic impacts.

0101	Robert McClennan	Seats (Total: 2)
	Tu 7:00pm - 9:40pm	ARC 1103

RDEV600 **Principles and Practice of Real Property Development**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688T or RDEV600. Formerly: RDEV688T.

An introduction to basic principles of real estate development: How real estate and communities get built and how value is created. The emphasis is on entrepreneurship and an experiential learning approach to the entrepreneurial real estate development process, principles, and practice.

0101	Thomas Kaufman	Seats (Total: 19)
	M 7:00pm - 9:40pm	ARC 1101

RDEV603 **Introduction to Real Property Finance**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of the Department. Credit only granted for: RDEV688Z, RDEV689V, or RDEV603. Formerly: RDEV688Z and RDEV689V.

Introduction to Real Property Finance addresses how real estate value is established, the fundamental foundations of the time value of money, as well as more real estate specific applications of return on investment, net operating income, the components of a real estate sources and uses statement, sources of real estate equity and debt financing, commonly used debt ratios and equity returns in real estate, as well as concepts of sensitivity analysis and exit strategies.

0101	Thomas Dwyer	Seats (Total: 20)
	W 7:00pm - 9:40pm	ARC 1101

RDEV605 **Tax and Accounting for Real Property Developers**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688K or RDEV605. Formerly: RDEV688K.

This course is designed to familiarize students with taxation and accounting as it pertains to real estate development.

0101	Leslie Mostow Tu 7:00pm - 9:40pm	Seats (Total: 28) ARC 0204

RDEV620 **Market Analysis for Real Property Development**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV689M or RDEV620. Formerly: RDEV689M.

Designed to introduce and familiarize students with completing market analysis for real property projects. Includes a broad range of land uses including for-rent and for-sale residential, retail, office, and hospitality. Covers all aspects of completing a market analysis from the site visit to recommendations, and all the steps in-between. Examines how various real estate practitioners, such as developers, builders, investors, landowners, and public officials, utilize market studies.

0101	Abigail Ferretti M 7:00pm - 9:40pm	Seats (Total: 28) ARC 1105

RDEV630 **Real Property Finance and Investment**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV630, RDEV688B, or URSP664. Formerly: RDEV688B.

This course is designed to introduce students who have experience in real estate finance or have taken an introductory course in real estate finance and investment to move to this intermediate course that addresses foundational concepts of commercial real estate finance and the measures used in analyzing and evaluating real estate projects. Quantitative analysis and financial modeling comprise the main focus.

0101	Instructor: TBA Tu 7:00pm - 9:40pm	Seats (Total: 19) Location: TBA

RDEV635 **Capital Markets and Real Estate Investments for Developers**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: RDEV630, URSP664, or RDEV688. Restriction: Must be in Real Estate Development (Master's) program; or permission of ARCH-Real Estate Development. Credit only granted for: RDEV635 or RDEV688F. Formerly: RDEV688F.

An advanced course in real estate finance focusing on capital markets and complex financing mechanism in the public and private markets for raising capital for development of public, private and public/private projects.

0101	Kathleen Miles	Seats (Total: 19)
	Th 7:00pm - 9:40pm	ARC 1103

RDEV640 **Principles of Urban Design for Real Property Developers**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688J or RDEV640. Formerly: RDEV688J.

Introduces students to the design issues associated with development of the basic real property asset classes (office, retail, and residential) and the context driven forces that shape these different development types. Also introduces non-design students to the principles of visual literacy and the capacity of different property to support development in the effort to enhance a community.

0101	Robert McClennan	Seats (Total: 25)
	Tu 7:00pm - 9:40pm	ARC 1103

RDEV660 **Commercial Leasing for Real Property Developers**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688L or RDEV660. Formerly: RDEV688L.

Provides students with a hands-on look at commercial and real estate leases, lease provisions, and current market activity, a key factor in determining when and whether to proceed with developing a commercial property.

0101	Andrew Rose, Suzanne White	Seats (Total: 20)
	W 7:00pm - 9:40pm	ASY 3215

RDEV670 **Negotiating Agreements & Resolving Conflicts when Developing Real Property**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688E or RDEV670. Formerly: RDEV688E.

Designed to develop students' negotiation and leadership skills for managing differences between individuals and groups while in the process of developing and operating real property. Includes a blend of skill-building exercises and theory discussions about the behavior of individuals to understand negotiation dynamics.

0101	Ronald McDonald	Seats (Total: 16)
	M 7:00pm - 9:40pm	Location: TBA

RDEV688D **Selected Topics in Real Estate Development; Geo-Underwriting: Location-Based Project Feasibility Analysis - From Segregation to Gentrification**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Selected topics in real estate development.

This course overviews fundamentals of project level real estate underwriting and its inextricable relationship to the neighborhood context. The construct of "neighborhood" is explored throughout the course as both a social organizing principle and as an economic marketplace. Neighborhoods are considered throughout the historical forces that have shaped them, reaching back to the original formation of ethnic and racial ghettos and moving forward through urban renewal and modern-day gentrification. The changing forms of the real estate projects that have sustained these neighborhoods over time are evaluated . As changes further continued in neighborhoods and altered perceived demands for housing and services, the factors that changed the viability of real estate projects are closely investigated. The course also considers the government and policy landscapes that have helped shape neighborhood form and the real estate types found there. These policies are understood through review of actual case examples.

0101	Instructor: TBA Th 7:00pm - 9:40pm	Seats (Total: 15) Location: TBA

RDEV689D **Current Topics in Real Estate Development; Affordable Housing Asset Management**

(Perm req)

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

0101	David Jefferson Th 7:00pm - 9:40pm	Seats (Total: 15) ASY 3215

RDEV689Y **Current Topics in Real Estate Development; Guided Real Estate Development Project**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Explores a focused aspect in any of the five major phases of real estate development: planning, finance, law, design, construction, or management.

Prerequisite: Permission of the department.

0101	Maria Day-Marshall, Tanya Bansal Contact instructor or department for details.	Seats (Total: 4)

RDEV690 **Capstone Project: Real Property Feasibility Study**

(Perm req)

Credits: 3

Grading Method: Regular

Prerequisite: Completion of at least 7 RDEV courses. Restriction: Permission of ARCH-Real Estate Development. Credit only granted for: RDEV688I or RDEV690. Formerly: RDEV688I.

The capstone course is designed to provide students with an opportunity to apply acquired classroom knowledge to real world conditions. Each student in the class will work separately to create a development proposal and feasibility study for an assigned property. For students doing a feasibility study of a development the study will address at least market analysis, entitlement process, construction, and financing for the project.

0101	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1111	
0102	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1111	
0103	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1111	
0104	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1111	
0105	Maria Day-Marshall, Tanya Bansal Tu 7:00pm - 9:40pm	Seats (Total: 10) ARC 1111	

RELS Religious Studies Fall 2022

RELS120 Islamic Civilization

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SH, D | General Education: DSHU

Cross-listed with: HIST120. Credit only granted for: HIST120 or RELS120.

Introduction to society and culture in the Middle East since the advent of Islam: as a personal and communal faith; as artistic and literary highlights of intellectual and cultural life; and as the interplay between politics and religion under the major Islamic regimes.

0101	Rachel Schine MW 11:00am - 11:50am F 9:00am - 9:50am	Seats (Total: 23) KEY 0106 TLF 1101	 Discussion
0102	Rachel Schine MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 23) KEY 0106 TLF 1101	 Discussion
0103	Rachel Schine MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 23) KEY 0106 TLF 1101	 Discussion

RELS170 **Ancient Myths and Modern Lives**

Credits: 3	Grading Method: Regular, Pass-Fail, Audit	CORE: HL	General Education: DSHU, SCIS

Cross-listed with: CLAS170. Credit only granted for: CLAS170 or RELS170. Additional information: This course cannot be taken for language credit.

What are myths and why do we tell them? What powers do myths have? We will tackle these questions by looking at the enduring and fascinating myths from ancient Greece and Rome. In addition to studying how they shaped ancient societies, we will also look at their modern influence and reflect upon the power that myths still hold in our contemporary world. Taught in English.

0101	Katherine Wasdin MW 11:00am - 11:50am F 10:00am - 10:50am	Seats (Total: 21) MMH 1400 ASY 3207	Discussion
0102	Katherine Wasdin MW 11:00am - 11:50am Th 9:30am - 10:20am	Seats (Total: 21) MMH 1400 TYD 1118	Discussion
0103	Katherine Wasdin MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 TWS 0320	Discussion
0104	Katherine Wasdin MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 VMH 1207	Discussion
0105	Katherine Wasdin MW 11:00am - 11:50am Th 12:30pm - 1:20pm	Seats (Total: 21) MMH 1400 TLF 1103	Discussion
0106	Katherine Wasdin MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 21) MMH 1400 ASY 3211	Discussion
0107	Katherine Wasdin MW 11:00am - 11:50am F 1:00pm - 1:50pm	Seats (Total: 21) MMH 1400 ASY 3203	Discussion
0108	Katherine Wasdin MW 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 21) MMH 1400 SQH 1119	Discussion

0109	Katherine Wasdin	Seats (Total: 22)	
	MW 11:00am - 11:50am Th 9:30am - 10:20am	MMH 1400 TWS 1100	Discussion

RELS219E **Special Topics in Religious Studies; Visual Cultures of Islam**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in Religious Studies

Crosslisted with ARTH389L, AAST298B, PERS298E, and HIST219E. Credit granted for HIST219E, ARTH389L, AAST298B, PERS298E, or RELS219E. Visual Cultures of Islam is part of the Digital Islamic Studies Curriculum (digitalislam.umich.edu). This course is taught by an expert in the field of Islamic Art at the University of Michigan, and digitally shared with the University of Maryland. The course explores definitions of "Islamic" art and investigates various visual cultures of Islam around the world from the 7th to the 20th century. The course meets twice a week in real time using video conferencing technology and students are able to enroll directly at Maryland for course credit.

0101	Instructor: TBA	Seats (Total: 12)
	TuTh 11:30am - 1:00pm	TLF 2100

RELS230 **Inventing Traditions: The Making of Rabbinic Judaism**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DSHU, SCIS

Cross-listed with: HIST281, JWST230. Credit only granted for: HIST281, JWST230, RELS219C or RELS230. Formerly: RELS219C.

Introduces the dramatic literary and cultural (as well as political and demographic) innovations that reshaped Judaism in late antiquity. Examines the fundamental works and genres of rabbinic literature and the religious movement that produced them. Special emphasis on the rabbinic uses of "tradition" to enhance authority and legitimacy, and to foster group identity.

0101	Hayim Lapin	Seats (Total: 30)
	MW 2:00pm - 3:15pm	EGR 1104

RELS269 **Special Topics in Study Abroad II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269F **Special Topics in Study Abroad II; Religion in a Pluralistic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS269G **Special Topics in Study Abroad II; From Asoka to Gandhi: Buddhism and Hinduism in Contemporary Society**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS273 **Jesus, Mani, and Muhammad: The Dynamics of New Religious Movements**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

Cross-listed with: HIST289T. Credit only granted for: RELS273 or RELS289M or HIST289T. Formerly: RELS289M.

We examine three significant ancient religious figures: Jesus (d. 30s CE), Mani (d. 276 CE), and Muhammad (d. 632). All three were founders of long-lasting religions that were part of a dramatic change in the society and religion of the ancient world. Special areas of focus: the biographies of these founding figures, and how we know them; a historical approach to religious founders; and the sociology of new religious movements.

0101	Hayim Lapin MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) TWS 1100 TLF 2103	Discussion
0102	Hayim Lapin MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 23) TWS 1100 TLF 2103	Discussion
0103	Hayim Lapin MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 23) TWS 1100 TLF 2103	Discussion

RELS274 **Jerusalem in Antiquity: The History of Sacred Space in a Holy City**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP, SCIS

Cross-listed with: JWST274. Credit only granted for: JWST274, RELS274, JWST289J or RELS289J. Formerly: JWST289J, RELS289J.

Examines the complex history of Jerusalem's status as a holy city, with a focus on constructions of sacred space in Judaism, Christianity, and Islam.

0101	Matthew Suriano MW 11:00am - 11:50am W 1:00pm - 1:50pm	Seats (Total: 20) CSI 3117 ONLINE	Discussion
0102	Matthew Suriano MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 20) CSI 3117 ONLINE	Discussion
0103	Matthew Suriano MW 11:00am - 11:50am F 12:00pm - 12:50pm	Seats (Total: 20) CSI 3117 ONLINE	Discussion
0104	Matthew Suriano MW 11:00am - 11:50am W 2:00pm - 2:50pm	Seats (Total: 20) CSI 3117 ONLINE	Discussion

RELS289D **New Explorations in Religious Studies; God Wills It!" The Crusades in Medieval and Modern Perspectives**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Investigation of critical and innovative responses in Religious Studies. Although the topic will vary, the course will encourage intellectual exploration by students of fundamental problems and critical methods.

Jointly offered with HIST133. Credit only granted for: HIST133, HIST289 D, or RELS289D.

0101	Janna Bianchini MW 10:00am - 10:50am F 11:00am - 11:50am	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0102	Janna Bianchini MW 10:00am - 10:50am F 1:00pm - 1:50pm	Seats (Total: 23) KEY 0106 KEY 0100	Discussion
0103	Janna Bianchini MW 10:00am - 10:50am F 2:00pm - 2:50pm	Seats (Total: 23) KEY 0106 KEY 0100	Discussion

RELS319B **Special Topics in Religious Studies; Minorities, Minoritization, and Sectarianism in the Modern Middle East**

Credits: 3 Grading Method: Regular

Special topics in the study of religious history, literature, culture, and thought.

Cross-listed with HIST339L. Credit only granted for HIST339L or RELS319B. Minorities and Sectarianism are two categories that are commonly used in contemporary political and social analysis of the Modern Middle East. The course will look at the historical events and processes that have led to the emergence of such social structures that are more often the product of modern politics than markers of essential historical difference. We will analyze the roots of ethnic and religious diversity and their manipulation by colonial and post-colonial governments, and at the politics of self-assertion by minority groups in the Middle East and North Africa during the twentieth and twenty-first centuries.

0101	Peter Wien	Seats (Total: 30)
	TuTh 2:00pm - 3:15pm	KEY 0100

RELS319G **Special Topics in Religious Studies; Cinema and Religion**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in the study of religious history, literature, culture, and thought.

Cross-listed with CINE369R. Credit only granted for CINE369R or RELS319G. How does religion make itself felt within cinema, the most modern of expressive media? And how does a critical perspective informed by religion affect an understanding of cinema? In this course, we will ask questions about how cinema renders religious stories and spirituality in general. What is the relation between cinematic aesthetics and religious experience?

0101	Eric Zakim	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	ESJ B0322

RELS341 **Europe in the High Middle Ages: 1000-1500**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with: HIST331. Credit only granted for: HIST331 or RELS341.

Medieval civilization in the 11th through 15th centuries. Emphasis on cultural and political developments of the high Middle Ages with study of the principal sources of medieval thought and learning, art and architecture, and political theory prior to the Renaissance.

0101	Janna Bianchini	Seats (Total: 30)
	MW 2:00pm - 3:15pm	ASY 1213

RELS342 **Renaissance Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: HIST112 or HIST111; or permission of instructor. Cross-listed with: HIST332. Credit only granted for: HIST332 or RELS342.

Intellectual developments in Italy and Northern Europe from 1300 to 1550 and their influence on the arts and religion; social and economic trends, including the rise of the commercial economy in cities; the family and the role of women in society; expansion of Europe overseas and the beginnings of colonization; emergence of the state and consequent changes in political theory.

0101	Stefano Villani	Seats (Total: 30)
	TuTh 3:30pm - 4:45pm	TLF 1101

RELS369C **Special Topics in Study Abroad III; Between Tolerance and Conflict: Jewish, Christians and Muslims in the Iberian Peninsula**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS369R **Special Topics in Study Abroad III; Christianity and the Roman Empire (100-425CE)**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

RELS429B **Advanced Topics in Religious History; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of religious history in a particular setting, with attention to particular themes, texts, events, or communities.

Cross-listed with CMLT679D, HIST419C, PERS498M, PERS689M, WGSS498D, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller	Seats (Total: 15)
	W 6:00pm - 8:30pm	JMZ 1215

RELS499 **Independent Study in Religious Studies**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An advanced independent research project for qualified students, supervised by a faculty member, on a topic not ordinarily covered in available courses.

Contact department for information to register for this course.

RUSS Russian Fall 2022

RUSS101 **Intensive Elementary Russian I**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian. Credit only granted for: RUSS101 or (RUSS111 and RUSS112).

This intensive first-year course is intended to develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

This course has been put on a timed release system. Seats will be opended gradually by the registrar's office, to a total of 15 seats per section. If the course is full, please put yourself on the waitlist and contact Dr. Cynthia Martin (cmartin@umd.edu) for permission to enroll.

0101	Inna Hardman	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 3203
	TuTh 9:30am - 10:45am	JMZ 3203
0201	Inna Hardman	Seats (Total: 15)
	MWF 11:00am - 11:50am	JMZ 3203
	TuTh 11:00am - 12:15pm	JMZ 3203

RUSS201 Intermediate Russian I

Credits: 5 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: RUSS102 or RUSS114; or must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Russian.

Continued activation and expansion of skills and knowledge acquired in an elementary Russian course with the goal of communicative competence.

If the course is full, please put yourself on the waitlist and contact Dr. Cynthia Martin (cmartin@umd.edu) for permission to enroll.

0101	Zhanna Gerus-Vernola	Seats (Total: 15)
	MWF 10:00am - 10:50am	JMZ 2125
	TuTh 10:00am - 10:50am	JMZ 2125

RUSS287 The Power of the Word: Freedom of Speech in the U.S. and Russia

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Credit only granted for: RUSS287 or RUSS289I. Formerly: RUSS289I. Additional information: Taught in English.

The central theme is the abiding human propensity to ask questions, to use language to pursue inquiry. To be a "critical thinker," one must develop the habit and discipline of asking questions and challenging assumptions. Through a comparative approach to the US and Russian experiences, we will explore the role of language and its power in different political and social systems. We will explore such questions as: Why is free speech so fiercely defended in a democracy and such a threat to totalitarianism? What is the relationship between free speech, political power and dissent? Is the pen still mightier than the sword, even in the nuclear age? What has shaped our current attitudes toward freedom of expression? How has the concept of political free speech been extended to include freedom of expression in general, such as in the creative arts? What role do new technologies play in the arena of free speech debates? We will explore how freedom of speech and expression has been defended or its suppression justified in the US and Russia. We will practice the art of questioning and constructing counter-arguments throughout the course.

0101	Cynthia Martin MW 3:30pm - 4:45pm	Seats (Total: 60) EGR 1108

RUSS301 **Advanced Russian I**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: RUSS202; or students who have taken courses with comparable content may contact the department. Restriction: Must not be a native/fluent speaker of Russian.

Advanced training in written Russian communicative structures.

0101	Cynthia Martin MWF 10:00am - 10:50am	Seats (Total: 15) JMZ 1215

RUSS303 **Russian Conversation: Functional Skills**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS202; or students who have taken courses with comparable content may contact the department.

Intended for students who do not anticipate having the opportunity to study in Russia. Skills for daily life (both function and etiquette) and argumentation (rhetoric).

0101	Alexandra Portney TuTh 11:00am - 12:15pm	Seats (Total: 15) JMZ 2125

RUSS386 **Experiential Learning**

(Perm req)

Credits: 3-6

Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Languages, Literatures, and Cultures department.

Contact the department to obtain section numbers.

Contact department for information to register for this course.

RUSS401 **Advanced Russian Composition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: RUSS302; or students who have taken courses with comparable content may contact the department. Restriction: Not open to native speakers of Russian.

Approaches to argumentation, organization of information, contextualized grammar, appropriateness of lexical choice, genre, and register.

0101	Alexandra Portney	Seats (Total: 15)
	MWF 11:00am - 11:50am	JMZ 1103

RUSS439E **Selected Topics in Russian Literature; Cultural Map of Russia: Explorations in the Diversity of Russia**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Presentation of a topic in Russian literature.

Prerequisite: Must have completed or be concurrently enrolled in RUSS301 or higher. Topics will include Russian cultural, ethnic, linguistic, geographic, and environmental diversity. Taught in Russian.

0101	Inna Hardman	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	JMZ 2125

RUSS499 **Independent Study in Russian**

(Perm req)

Credits: 1-3 Grading Method: Regular

Independent study under faculty supervision.

Contact department for information to register for this course.

RUSS798 **Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

RUSS799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA Second Language Acquisition and Application Fall 2022

SLAA610 **Research and Theories in Second Language Acquisition**

Credits: 3

Grading Method: Regular, Audit

Introduction to current theories and research findings Second Language Acquisition (SLA).

0101	Megan Masters	Seats (Total: 10)
	M 2:00pm - 4:30pm	JMZ 1103

SLAA630 **Second Language Testing**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to basic concepts in the assessment of second language knowledge. Issues of reliability, dependability, construct validity, utility, and washback on instruction are examined.

0101	Martyn Clark	Seats (Total: 15)
	Tu 2:00pm - 4:30pm	JMZ 1103

SLAA640 **Psycholinguistics**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: SLAA610; or permission of ARHU-School of Languages, Literatures, and Cultures department.

An introduction to the field of psycholinguistics that covers speech perception, word recognition, sentence and discourse processing, speech production, and language acquisition. Basic concepts, research methods, major research topics, leading theories and related research findings, with implications of psycholinguistic theories and findings for second language studies.

0101	Bronson Hui	Seats (Total: 10)
	Tu 5:00pm - 7:30pm	JMZ 1124

SLAA649R **Special Topics in Second Language Acquisition; Research Critique**

Credits: 3

Grading Method: Regular, Audit

Current topics in research in second language acquisition.

0101	Nan Jiang	Seats (Total: 10)
	Th 5:00pm - 7:30pm	JMZ 1124

SLAA719 **Second Language Acquisition and Application Internship**

Credits: 3

Grading Method: Regular, Audit

Internship at a site to be determined. Topics may include heritage language learning, immersion education, testing and assessment, translation and interpretation, and national language planning and policy.

Contact department for information to register for this course.

SLAA749P **Special Topics in Second Language Learning; Bilingual Language Processing**

Credits: 3 Grading Method: Regular, Audit

Current topics in research on Second Language Learning.

0101	Nan Jiang	Seats (Total: 10)
	Th 2:00pm - 4:30pm	JMZ 1103

SLAA750 **Instructed Second Language Acquisition**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SLAA610.

Survey of studies on effectiveness of SLA instruction within various domains of language, with focus on research design.

0101	Bronson Hui	Seats (Total: 15)
	W 2:00pm - 4:30pm	JMZ 1215

SLAA779 **Directed Research in Second Language Acquisition and Application**

Credits: 1-3 Grading Method: Regular, Audit

Directed independent research in Second Language Acquisition or Application. In this capstone project, students engage in independent research under faculty direction.

Contact department for information to register for this course.

SLAA798 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Contact department for information to register for this course.

SLAA799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLAA888 **Doctoral Independent Study**

Credits: 1-3 Grading Method: Regular, Audit

Individual instruction course.

Contact department for information to register for this course.

SLAA898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SLAA899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SLLC School of Languages, Literatures and Cultures Fall 2022

SLLC108B **Beg Less Commonly Taught Language I; Elementary Basque I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Illinois, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets August 22, 2022 - December 7, 2022	
	TuTh 4:30pm - 5:50pm	ONLINE

SLLC108E **Beg Less Commonly Taught Language I; Elementary Hatian Creole I**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Indiana University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 2)
	Meets August 22, 2022 - December 10, 2022	
	TuTh 3:00pm - 4:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	This section is for undergraduate students. Students should register for 4 credits.	

0201	Instructor: TBA	Seats (Total: 2)
	Meets August 22, 2022 - December 10, 2022	
	TuTh 3:00pm - 4:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	This section is for graduate students. Students should register for 3 credits.	

SLLC108F **Beg Less Commonly Taught Language I; Elementary Catalan I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Chicago, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 5)
	Meets September 27, 2022 - December 10, 2022	
	MW 2:30pm - 4:00pm	ONLINE
	Class time/details on ELMs	ONLINE

SLLC108G **Beg Less Commonly Taught Language I; Elementary Dutch I**

(Perm req)

Credits: 3-4

Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at Indiana University, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 2)
	Meets August 22, 2022 - December 10, 2022	
	M 5:15pm - 6:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	This section is for undergraduate students. Students should register for 4 credits.	

0201	Instructor: TBA	Seats (Total: 2)
	Meets August 22, 2022 - December 10, 2022	
	M 5:15pm - 6:30pm	ONLINE
	Class time/details on ELMs	ONLINE
	This section is for graduate students. Students should register for 3 credits.	

SLLC108T **Beg Less Commonly Taught Language I; Elementary Turkish I**

(Perm req)

Credits: 4 Grading Method: Regular, Pass-Fail

Study of any of the less commonly taught languages at the elementary level. Speaking, listening, reading, and writing a less commonly taught language. Development of an emphasis on oral proficiency skills.

This is a Big Ten Academic Alliance CourseShare course. The instructor is at the University of Michigan, but you enroll and receive credit for it at Maryland.

0101	Instructor: TBA	Seats (Total: 2)
	Meets August 29, 2022 - December 9, 2022	
	MTuWThF 9:00am - 10:00am	ONLINE

SLLC169B **Special Topics in Study Abroad I; Elementary Basque I**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169C **Special Topics in Study Abroad I; Elementary Basque II**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169D **Special Topics in Study Abroad I; Great Czech Writers**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC169L **Special Topics in Study Abroad I; Basque Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269B **Special Topics in Study Abroad II; Scandinavian Moods in Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269X **Special Topics in Study Abroad II; Intermediate Basque I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC269Y **Special Topics in Study Abroad II; Intermediate Basque II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC280 **Mythology of the Oppressed**

Credits: 3 Grading Method: Regular General Education: DSHU, SCIS

Credit only granted for: SLLC280 or SLLC299J. Formerly: SLLC299J.

Does information drive human history? Mythological recurrences say much about cultures that had to adapt their world views while attempting to preserve them. This course examines the cognitive or social bases of mythology, to be pursued from insights in cultural and literary studies, linguistics, the cognitive sciences, paleo-anthropology, archeology, etc. The course is designed to help students think about complex problems from a humanistic perspective, making liberal use of the sciences.

Restricted to Carillon Community Language students.

0101	Juan Uriagereka	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	SQH 1105

SLLC286 **Living the Good Life: Chinese Philosophy in the Modern World**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, SCIS

Additional information: Taught in English.

Confucius, Mencius, Zhuangzi and other Chinese thinkers who lived more than 2,000 years ago would argue that the contemporary Western emphasis on self-discovery (Find yourself) and self-acceptance has led you astray. See what they have to say and discuss what relevance it has for the modern world as we study how early Chinese thinkers wrestled with questions of existence, morality, and governance. No previous knowledge of Chinese philosophy and history will be assumed and no prerequisites are required. We will discuss ideas that are both historical and relevant to students' lives. What is "the Way"? How do we cultivate spontaneity? Is there a stable self? How can we be more alive? These are questions important for ancient kings but also for UMD students choosing a major, or wondering how ARHU can benefit them.

0101	Andrew Schonebaum TuTh 2:00pm - 3:15pm	Seats (Total: 60) SHM 2102

SLLC299R **Special Topics in World Cultures; Elementary Italian I**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC299Z **Special Topics in World Cultures; Spanish Civilization and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Topic to be announced when course is offered.

Contact department for information to register for this course.

SLLC309 **Language Partner Program**

(Perm req)

Credits: 1 | Grading Method: Regular

For intermediate- to advanced-level language study. Conversations entirely in target language with native speaker.

Students must be able to meet on September 19, 2022 and November 28, 2022.

0101	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Arabic.*	Seats (Total: 10) STM 0105

0102	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Chinese.*	Seats (Total: 10) STM 0105
0103	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *French.*	Seats (Total: 10) STM 0105
0104	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *German.*	Seats (Total: 10) STM 0105
0105	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Italian.*	Seats (Total: 10) STM 0105
0106	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Japanese.*	Seats (Total: 10) STM 0105
0107	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Korean.*	Seats (Total: 10) STM 0105
0108	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Portuguese.*	Seats (Total: 10) STM 0105
0109	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Russian.*	Seats (Total: 10) STM 0105

0110	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Spanish.*	Seats (Total: 10) STM 0105
0111	Lindsay Yotsukura M 4:00pm - 5:50pm Contact instructor or department for details. *Persian.*	Seats (Total: 10) STM 0105

SLLC369A **Special Topics in Study Abroad III; Alternative Culture, Literature, Music and Lifestyles**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369C **Special Topics in Study Abroad III; Czech Film**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369D **Special Topics in Study Abroad III; Art and Dictatorship**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369X **Special Topics in Study Abroad III; Advanced Basque I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC369Y **Special Topics in Study Abroad III; Advanced Basque II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SLLC386 **Experiential Learning**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and the student's internship sponsor. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SLLC789 **Master's Independent Study**

Credits: 1-3 Grading Method: Regular

Contact department for information to register for this course.

SMLP Southern Management Leadership Program Fall 2022

SMLP470 **Fundamentals of Entrepreneurial Ventures**

Credits: 3 Grading Method: Regular

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN470, SMLP470, ENES460 or BMGT461. Formerly: HLMN470. Additional information: SMLP470 may not count toward any BMGT major or minor degree.

Learn the processes and skills needed to launch and manage start-up ventures, including technology startups. Assess the feasibility of a startup ventures, as well as how to apply best practices for planning, launching, and managing new companies by using real-world examples and in-depth case studies. Discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunity, assess the skills and talents of successful entrepreneurs, and learn models and approaches that help navigate uncertainty.

0101	Brooke Smith	Seats (Total: 40)
	F 1:00pm - 3:30pm	ESJ 1215

SMLP472 **Strategies for Innovation & Entrepreneurship**

Credits: 3 Grading Method: Regular

Restriction: Restricted to students in the Southern Management Leadership Program. Credit only granted for: HLMN472, SMLP472, BMGT467, or ENES463. Formerly: HLMN472. Additional information: SMLP472 may not count toward any BMGT major or minor degree.

Understand the process of technological change; the ways that firms come up with innovations; the strategies that firms use to benefit from innovation; and how to create new value not only through new products or services, but with novel technologies, business concepts, organizing structures, transaction/financing mechanisms, distribution channels, and market segmentation. Challenge students to think about how to create value and build a productive business organization with available resources (e.g. intelligence, insight, energy, initiative and personal relationships).

0101	Sara Herald	Seats (Total: 45)
	F 1:00pm - 3:30pm	HJP 2242

SOCY Sociology Fall 2022

SOCY100 **Introduction to Sociology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

The fundamental concepts and principles of sociology. Includes consideration of culture, patterns of social interaction, norms, values, social institutions, stratification, and social change.

0101	Brian Connor MWF 1:00pm - 1:50pm	Seats (Total: 90) ASY 2203
0201	Christopher Malackany TuTh 9:30am - 10:45am	Seats (Total: 90) ONLINE
0301	Amelia Branigan M 2:00pm - 3:15pm W 2:00pm - 3:15pm	Seats (Total: 120) ASY 2203 ONLINE
0401	Robert Pernick TuTh 12:30pm - 1:45pm	Seats (Total: 90) TYD 0117
0501	Julia Chuang MWF 9:00am - 9:50am	Seats (Total: 90) ASY 2309
0601	Jeffrey Parsells-Johnson TuTh 2:00pm - 3:15pm	Seats (Total: 90) ONLINE
FC01	Daniel Swann MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) ASY 1213
FC02	Asiah Gayfield TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) VMH 1203

SOCY105 Introduction to Contemporary Social Problems

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

0101	Jeffrey Parsells-Johnson MW 2:00pm - 3:15pm	Seats (Total: 50) SKN 0200

0201	Kalani Johnson TuTh 3:30pm - 4:45pm	Seats (Total: 90) ESJ 2208
0301	Jeffrey Parsells-Johnson MWF 10:00am - 10:50am	Seats (Total: 50) SQH 1119
FC01	Annette Waters MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) ASY 3203

SOCY120 **Veterans in American Society: What does America Owe Its Veterans?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, SCIS

An examination of current and past policies toward compensation for military veterans, data and evidence on current and past adjustments to life after military service, historical variations in the mechanisms for staffing the military, and trends in the contours of the lives of those who do not serve.

0101	Meredith Kleykamp TuTh 9:30am - 10:45am	Seats (Total: 60) TYD 0102

SOCY200 **Human Societies**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS, SCIS

A comparative, historical, interdisciplinary study of human socieities that focuses on the main components of human societies, how they are organized, how they change, and how they come to shape our collective social existence.

0101	Nicole De Loatch MW 12:00pm - 12:50pm Class time/details on ELMs	Seats (Total: 120) ASY 2203 ONLINE	 Discussion

SOCY201 **Introductory Statistics for Sociology**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSAR

Prerequisite: SOCY100; and (MATH107 or MATH111). Restriction: Must not have completed STAT400, BMGT231, or ENEE324. Credit only granted for: BIOM301, BMGT230, CCJS200, ECON230, EDMS451, GEOG306, GEOL351, GVPT422, INST314, JOUR405, PSYC200 or SOCY201.

Elementary descriptive and inferential statistics. Construction and percentaging of bivariate contingency tables; frequency distributions and graphic presentations; measures of central tendency and dispersion; parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial and chi-square distributions; point and interval estimates.

0101	Mansoor Moaddel TuTh 2:00pm - 3:15pm W 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0229	 Lab
0102	Mansoor Moaddel TuTh 2:00pm - 3:15pm W 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0229	 Lab

SOCY202 **Introduction to Research Methods in Sociology**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

The underlying logic, major strategies, specific techniques and skills of sociological research. Research design, measurement, data collection, sampling, field research experiments, surveys, index and scale construction, data analysis, interpretation and report writing.

0101	Monica Caudillo TuTh 11:00am - 12:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0227	 Lab
0102	Monica Caudillo TuTh 11:00am - 12:15pm F 10:00am - 11:50am	Seats (Total: 20) ASY 2309 LEF 0229	 Lab
0103	Monica Caudillo TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0227	 Lab
0104	Monica Caudillo TuTh 11:00am - 12:15pm F 12:00pm - 1:50pm	Seats (Total: 20) ASY 2309 LEF 0229	 Lab

SOCY203 **Sociological Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY100.

Development of the science of sociology; historical backgrounds; recent theories of society. Required of all sociology majors.

0101	Brian Connor MW 11:00am - 11:50am F 11:00am - 11:50am	Seats (Total: 78) ASY 2309 ONLINE	

SOCY224 **Why are We Still Talking About Race?**

Credits: 3 | Grading Method: Regular | General Education: DSHS, SCIS

Exploration of the major debates and assumptions that construct individual perceptions of what race is and how race matters. Sociological and sub-cultural theories will give students a historical and present day frame with which to view race and ethnic relations in the twenty-first century.

0101	Chandra Reyna Class time/details on ELMs	Seats (Total: 90) ONLINE
0201	Kris Marsh TuTh 8:00am - 9:15am	Seats (Total: 90) ASY 2309

SOCY227 **Introduction to the Study of Deviance**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: SB | General Education: DSHS

Credit only granted for: SOCY227 or SOCY327. Formerly: SOCY327.

An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

0101	Meyer Kestnbaum TuTh 2:00pm - 3:15pm	Seats (Total: 29) ASY 3203
0201	Simone Durham MWF 10:00am - 10:50am	Seats (Total: 30) ONLINE

SOCY230 **Sociological Social Psychology**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS

Theoretical perspectives and their applications. Socialization through the life course, the self-concept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

0101	Jeffrey Lucas TuTh 12:30pm - 1:45pm	Seats (Total: 160) ASY 2203

SOCY236 **Gender and Health**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DSSP

Credit only granted for: SOCY236 or SOCY336. Formerly: SOCY236.

The relationship between gender and health is the central focus of this course. We consider how health disparities between women and men vary by race and ethnicity, sexual and gender minority identity, and social class. We consider how institutional and cultural factors across social and spatial contexts influence gendered associations with physical and mental health. In addition, this is a course on how to do the disciplinary work of sociology. Social discourse and policies about health have been crucial to creating our current understanding of gender and health. This course will provide training in analyzing health disparities and preparing research and policy briefs about how to address these disparities. This will happen through group projects and a peer reviewed process that relies on critical feedback from sociologists engaged in the same project, in this case, the other students in this course.

0101	Liana Sayer	Seats (Total: 78)
	MW 11:00am - 11:50am Class time/details on ELMs	TWS 0320 ONLINE

SOCY241 **Inequality in American Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SB, D

Credit only granted for: SOCY241 or SOCY441.

The dynamics of inequality: its social production, politics, future, and ideological bases. Utopian communities, efforts to eliminate inequality.

0101	Reeve Vanneman	Seats (Total: 80)
	TuTh 9:30am - 10:45am	ASY 2309

SOCY242 **Sociology of Homelessness**

Credits: 3 Grading Method: Regular General Education: DSSP

Examines the causes of and solutions for homelessness in society. How social scientists analyze social issues using ethnographic observation, surveys, official statistics, and other research methods. Discusses how policies have responded to the problem of homelessness, and how to evaluate their effectiveness.

0101	Reeve Vanneman	Seats (Total: 36)
	TuTh 12:30pm - 1:45pm	ASY 3207

SOCY310 **Sociology of Race, Class, Gender and Sports**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

This course examines the institution of sport with an emphasis on race, gender, and class. The course will critically analyze assumptions, historical relationships, and contemporary issues in sports. The course will utilize sports as a platform to understand and explore sociological concepts, theories, and research.

0101	Kris Marsh	Seats (Total: 30)
	TuTh 9:30am - 10:45am	ASY 3203

SOCY325 **The Sociology of Gender**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: 3 credits in SOCY courses. Cross-listed with: WGSS325. Credit only granted for: SOCY325, WMST325 or WGSS325. Formerly: WMST325.

Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

0101	Liana Sayer	Seats (Total: 60)
	MW 10:00am - 10:50am Class time/details on ELMs	TWS 1310 ONLINE

SOCY335 **Sociology of Health and Illness**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

An exploration of the social model to studying health and illness: how meanings and experiences of health and illness are socially produced. How experiences are shaped by the interaction of external social environments (culture, community) and the internal environment (human body), and by socio-demographic variables (race, class, gender, etc.). Disparities in health and healthcare delivery, medicalization of society, determinants of health, social construction of illness, and the social organization of health care.

0101	Jennifer Ashlock	Seats (Total: 80)
	Tu 11:00am - 12:15pm Th 11:00am - 12:15pm	ONLINE TWS 1100

SOCY343 **Rise of China**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Today, few questions pose more significance to scholars and policymakers than the "rise of China." As scholars grapple with explaining China's rise, they also provide tantalizing previews of the future of Chinese growth, and by extension, the future of the global economy. This course explores the character, conditions, and consequences of the rapid Chinese economic growth that many have termed "capitalism with Chinese characteristics." It summarizes three paradigms for explaining this growth: a state-centered, a market-centered, and a society-centered explanation. The course is divided in three parts, each examining a separate paradigm of development, and providing case studies of how this paradigm explains growth in specific industries and sectors of the Chinese economy.

0101	Julia Chuang	Seats (Total: 30)
	MWF 11:00am - 11:50am	SQH 1103

SOCY380 **Honors Independent Reading in Sociology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of BSOS-Sociology department.

This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

0101	Nicole De Loatch	Seats (Total: 5)
	Class time/details on ELMs	ONLINE

SOCY381 **Honors Independent Research in Sociology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY380.

This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

Contact department for information to register for this course.

SOCY383 **Honors Thesis Research**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY381.

Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

Contact department for information to register for this course.

SOCY386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Permission of BSOS-Sociology department; and junior standing or higher.

To register, students must have departmental permission form signed by instructor and by Coordinator of Sociology Undergraduate Program.

Contact department for information to register for this course.

SOCY391 **Surveillance and the Erosion of Privacy**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Our world is under increasing amounts of surveillance, from states, corporations, and other individuals. These activities may affect our sense of privacy since surveilling others is done as a means to gather knowledge. This class examines surveillance and privacy together in order to answer the following questions: Are acts of surveillance in contemporary society eroding our sense of privacy? Are certain populations more or less privileged in terms of having privacy rights? How can we protect privacy rights in an age of surveillance?

0101	Brian Connor	Seats (Total: 29)
	MWF 10:00am - 10:50am	ASY 3203

SOCY399 **Independent Study in Sociology**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

No more than 6 hours of 399 is allowed for credit.

Contact department for information to register for this course.

SOCY411 **Demographic Techniques**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: (SOCY201; or students who have taken courses with comparable content may contact the department); and SOCY410. Or permission of BSOS-Sociology department.

Basic techniques for analyzing population structure and demographic processes, including fertility, mortality and migration.

0101	Joan Kahn	Seats (Total: 29)
	Tu 2:00pm - 3:15pm Class time/details on ELMs	ASY 3207 ONLINE

SOCY424 **Sociology of Race Relations**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of UGST-Undergraduate Studies. Cross-listed with: AAST424. Credit only granted for: AAST424 or SOCY424.

Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

0101	Wayne Santoro	Seats (Total: 29)
	MW 2:00pm - 3:15pm	ASY 3207

SOCY432 **Social Movements**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Movements that seek change in the social and political structure of society. Origins, tactics, organization, recruitment, and success. Case studies come from such movements as labor, civil rights, student, feminist, environmental, neighborhood, and gay rights.

0101	Wayne Santoro	Seats (Total: 29)
	MW 3:30pm - 4:45pm	ASY 3207

SOCY461 **Sociology in Action: Research and Community Engagement in Prince George's County**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY202; or students who have taken courses with similar content may contact the department.

Sociology in Action is a research course that will use the science of sociology to inform real life issues and contribute to the development of social programs. In this course, students will gain hands-on experience in applying sociology by working with clients in Prince George's County on specific social problems and issues. Please assess your ability to commit to this course and fulfill all requirements. Given that students will be working with Prince George's County organizations, there will be some variation and unpredictability in the nature of the projects.

0101	Amy McLaughlin	Seats (Total: 20)
	TuTh 9:30am - 10:45am	ASY 1101

SOCY462 **Digital Technology and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: Must have completed 6 credits in SOCY courses; or permission of BSOS-Sociology department.

This course situates digital technology in our social environment and then examines how this relationship reflects, reinforces, or reorders social hierarchies. Students will learn the conceptual and methodological foundations for studying and evaluating how technologies such as health and social media apps, the personal computer, artificial intelligence, and weapons of war have evolved, diffused and impacted social life. Students will explore and then conduct independent research on the relationship between technology and social inequalities through the lens of health and medicine, the environment and climate change, jobs and the workplace, as well as government and criminal justice.

0101	Jennifer Ashlock	Seats (Total: 29)
	TuTh 9:30am - 10:45am	ASY 3207

SOCY467 **Sociology of Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 6 credits in SOCY courses; or permission of BSOS-Sociology department.

Sociological analysis of educational institutions and their relation to society: goals and functions, the mechanisms of social control, and the impacts of stratification and social change. Study of the school as a formal organization, and the roles and subcultures of teachers and students.

0101	Meredith Kleykamp	Seats (Total: 35)
	TuTh 11:00am - 12:15pm	ASY 3203

SOCY480 **Researching the Middle East**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SOCY201 and SOCY202; or permission of the Sociology department. Credit only granted for: SOCY498E or SOCY480. Formerly: SOCY498E.

Introduces religion, gender, and politics in the Middle East and North Africa. After an overview of the political and social history the focus will be on methods for carrying out research on fundamental issues facing Middle Eastern societies, including national identity, religion, gender relations and the status of women in the family, politics, education, and labor market.

0101	Mansoor Moaddel	Seats (Total: 29)
	TuTh 12:30pm - 1:45pm	ASY 3203

SOCY601 **Statistics For Sociological Research I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SOCY201; or students who have taken courses with comparable content may contact the department. Restriction: Permission of instructor. Credit only granted for: SOCY601 and SURV601.

Introductory statistical concepts are covered including descriptive statistics, probability, sampling distributions, expected values, hypothesis testing, tests of significance, measures of association, and if time permits, introduction to regression analysis. Statistical programming software may be used.

0101	Amelia Branigan	Seats (Total: 20)
	M 3:30pm - 6:00pm	ASY 1101

SOCY610 **Logic of Social Inquiry**

Credits: 3 Grading Method: Regular, Audit

Restriction: Restricted to Sociology graduate students. Credit only granted for: SOCY699D or SOCY610. Formerly: SOCY699D.

An introductory course on the fundamental issues that arise in the design, execution, analysis, and writing stages of the research process. The course is designed to help first-year graduate students begin their transition from a consumer to a producer of social research.

0101	Jeffrey Lucas, Collin Mueller	Seats (Total: 20)
	Tu 3:30pm - 6:00pm	ASY 1101

SOCY616 Sociology Pro-Seminar

Credits: 1 Grading Method: Sat-Fail

Restriction: Must be in Sociology (Doctoral) program. Credit only granted for: SOCCY699P or SOCY616. Formerly: SOCY699P.

The proseminar is the guide to Sociology as a profession, and how sociology is practiced here at the University of Maryland. The goal of the course is to help students gain insider knowledge about how to develop sociological knowledge and capabilities, and what it means to practice sociology as a graduate student and beyond. The course will discuss both practical aspects of professional life in general and specific topics of interest.

0101	Philip Cohen	Seats (Total: 20)
	F 10:00am - 10:50am	ASY 1101

SOCY620 Development of European and American Sociological Theory

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: SOCY203 or SOCY403; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Review of the history of sociological thought with major attention to the key figures (from Marx to C. Wright Mills).

0101	Meyer Kestnbaum	Seats (Total: 20)
	Th 3:30pm - 6:00pm	ASY 1101

SOCY626 Demography of Aging

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Examines the demographic foundations of population aging, focusing on macro and historical patterns as well as on trends in mortality health and disability. Also examines the relationship between aging and social institutions such as the family, the economy and public policy.

0101	Joan Kahn	Seats (Total: 20)
	Th 12:45pm - 3:15pm	ASY 1101

SOCY646 **Public Image Management and Policy Solutions**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from either the Sociology Department or Criminology & Criminal Justice Department.

Explores how to mitigate and solve image management problems that arise in organizations. Students will learn how to evaluate their organization, make recommendations for future development, and implement the practical aspects of the solution. Problems arise daily in organizations. Leaders need effective strategies to mitigate and solve these problems. While some problems are structural, daily problems often focus on social interactions among people. The course will focus on evaluating the source of problems, enhancing cultural competency among employees, restructuring and rebranding the organization, managing public image, and forming and implementing innovative policy solutions for long-term goals.

PLL1	Nicol Lee	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

SOCY657 **Constitutional Law and Public Safety**

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in one of the following programs: Master of Professional Studies in Public Safety Leadership and Administration (MPLA); Criminology and Criminal Justice (Master's); Criminology and Criminal Justice (Doctoral); Sociology (Master's); Sociology (Doctoral); or permission from BSOS-Criminology & Criminal Justice department.

Introduces students to the constitutional issues inherent in the practice of policing. Particular emphasis is placed on issues pertaining to the 4th, 5th, and 6th Amendments.

PLL1	Michael Vesely	Seats (Total: 20)
	Class time/details on ELMs	ONLINE
	Must be in Graduate Programs in Public Safety Leadership and Administration or a graduate student in a Semester Academic Calendar program.	

SOCY699 **Special Social Problems**

Credits: 1-16 Grading Method: Regular

Contact department for information to register for this course.

SOCY699C **Special Social Problems; Introduction to Computing for Sociologists**

Credits: 1 Grading Method: Regular, Audit

0101	Amelia Branigan	Seats (Total: 20)
	F 12:00pm - 2:00pm	LEF 0231

SOCY699M **Special Social Problems; Pro-Seminar for BA/MA Students**

(Perm req)

Credits: 1 Grading Method: Regular, Audit

Restricted to students in the 5-Year BA/MA Sociology program.

0101	Brian Connor	Seats (Total: 10)
	M 12:00pm - 1:00pm	ONLINE

SOCY799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SOCY819 **Research Seminar in Social Psychology**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take comprehensive examinations in social psychology.

0101	Jeffrey Lucas	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY829 **Research Seminar in Sociological Theory**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take comprehensive examinations in sociological theory.

0101	Meyer Kestnbaum	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY849 **Research Seminar in Demography**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take comprehensive examinations in demography.

0101	Sonalde Desai	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY858 **Research Seminar in Gender, Work and Family**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take the specialty examination in Gender, Work and Family.

0101	Liana Sayer	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY869 **Research Seminar in Military Sociology**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take comprehensive examinations in military sociology.

0101	Meredith Kleykamp	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY889 **Research Seminar in Social Stratification**

Credits: 1 Grading Method: Regular, Audit

An advanced research seminar for students preparing to do research or take comprehensive examinations in stratification.

0101	Philip Cohen	Seats (Total: 10)
	Class time/details on ELMs	ONLINE

SOCY898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SOCY899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN Spanish Fall 2022

SPAN103 **Intensive Elementary Spanish**

Credits: 4 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have appropriate Foreign Language Placement Test (FLPT) score. Restriction: Must not be a native/fluent speaker of Spanish. Credit only granted for: SPAN102 or SPAN103.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Karina De Sande MWF 10:00am - 10:50am Tu 10:00am - 10:50am	Seats (Total: 25) JMZ 0103 JMZ 0103
0201	Isadora Quintana MWF 11:00am - 11:50am Tu 11:00am - 11:50am	Seats (Total: 25) JMZ 2206 JMZ 0125
0301	Jorge Bayas MWF 12:00pm - 12:50pm Tu 12:00pm - 12:50pm	Seats (Total: 25) JMZ 0122 JMZ 0122
0401	Jorge Bayas MWF 1:00pm - 1:50pm Tu 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0122 JMZ 0122

SPAN169O **Special Topics in Study Abroad I; Beginner Spanish I**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169P **Special Topics in Study Abroad I; Beginner Spanish II**

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169X **Special Topics in Study Abroad I; Elementary Spanish I**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN169Y **Special Topics in Study Abroad I; Elementary Spanish II**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN203 **Intensive Intermediate Spanish**

Credits: 4 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: SPAN103; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Must not be a native/fluent speaker of Spanish.

Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

0101	Isabel Torrubia Gortari MWF 9:00am - 9:50am Th 9:00am - 9:50am	Seats (Total: 25) JMZ 3120 JMZ 3120
0201	Andrea Torres Armas MWF 10:00am - 10:50am Th 10:00am - 10:50am	Seats (Total: 25) KEY 0100 JMZ 0103
0301	Andrea Torres Armas MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 0103 JMZ 0125
0401	Gianinna Malatesta MWF 11:00am - 11:50am Th 11:00am - 11:50am	Seats (Total: 25) JMZ 1122 JMZ 1224
0501	Gianinna Malatesta MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0205 JMZ 0205
0601	Angela Pico Pinto MWF 1:00pm - 1:50pm Th 1:00pm - 1:50pm	Seats (Total: 25) JMZ 0103 JMZ 0122

SPAN204 **Spanish Grammar Review**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO

Prerequisite: SPAN203; or must have appropriate Foreign Language Placement Test (FLPT) score.
Restriction: Not open to fluent/native speakers of Spanish.

An in-depth study and analysis of selected grammatical topics in a contextualized framework.

0101	Maureen Wrightson MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 2122

0201	Evelyn Canabal-Torres MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 1122
0301	Marcela Risso TuTh 11:00am - 12:15pm	Seats (Total: 25) TLF 1103
0401	Marcela Risso TuTh 12:30pm - 1:45pm	Seats (Total: 25) SKN 1115

SPAN206 **Spanish for Heritage Speakers I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Native or near native knowledge of and no formal education in Spanish.

Review of oral and written Spanish for students who have native or near native knowledge of, but no formal education in Spanish. Taught in Spanish.

Students new to language courses in SLLC must take the Foreign Language Placement Test in order to register.

0101	Evelyn Canabal-Torres MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 1224

SPAN207 **Reading and Writing in Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: Must have completed or be concurrently enrolled in SPAN204; or must have appropriate Foreign Language Placement Test (FLPT) score.

Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

0101	Andres Garcia MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 2206
0201	Chila Hidalgo MWF 11:00am - 11:50am	Seats (Total: 25) JMZ 2123
0301	Chila Hidalgo MWF 12:00pm - 12:50pm	Seats (Total: 25) JMZ 2122

0401	Tatiana Chi Miranda TuTh 9:30am - 10:45am	Seats (Total: 25) JMZ 1122
0501	Tatiana Chi Miranda TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 0205

SPAN234 **Issues in Latin American and Caribbean Studies I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with: LACS234, PORT234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 30) KEY 0103

SPAN234H **Issues in Latin American and Caribbean Studies I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HO, D | General Education: DSHS, DSHU, DVUP

Cross-listed with: LACS234, PORT234. Credit only granted for: LASC234, PORT234, SPAN234, or LACS234. Formerly: LASC234.

Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions. Taught in English.

Open to Honor students only.

0101	Francisco Barrenechea MW 3:30pm - 4:45pm	Seats (Total: 5) KEY 0103

SPAN269A **Special Topics in Study Abroad II; B1 Intermediate Level Spanish I**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269B **Special Topics in Study Abroad II; B1 Intermediate Level Spanish II**

Credits: 6 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269D **Special Topics in Study Abroad II; Catalan Language and Culture**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269I **Special Topics in Study Abroad II; Intermediate Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN269L **Special Topics in Study Abroad II; Spanish Language B1**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN301 **Advanced Grammar and Composition I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in SPAN207.

Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

0101	Ana Acedo Garcia MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 2122
0201	Jose Magro MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 0118
0301	Ana Acedo Garcia MWF 2:00pm - 2:50pm	Seats (Total: 20) JMZ 1117
0401	Juan Diaz TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 1120
0501	Juan Diaz TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 2117

SPAN302 **Advanced Grammar and Composition II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301.

Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

Contact department for information to register for this course.

SPAN303 **Approaches to Cultural Materials in the Hispanic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Prerequisite: SPAN301. Recommended: May elect to take SPAN311 and/or SPAN316 in same semester as SPAN303.

Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. Taught in Spanish.

0101	Chris Lewis MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 1117
0201	Chris Lewis MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 1117
0301	Marcela Risso MWF 1:00pm - 1:50pm	Seats (Total: 20) JMZ 3120
0401	Ligia Gonzalez TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 2122
0501	Mehl Penrose TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 3120
0601	Ryan Long TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 3120
0701	Jose Naharro-Calderon TuTh 2:00pm - 3:15pm	Seats (Total: 20) JMZ 3120

SPAN311 **Advanced Communication I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303. Restriction: Must not be a native/fluent speaker of Spanish.

Further development of listening, speaking, and writing skills in Spanish. Opportunity to develop oral and written fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations. Taught in Spanish.

0101	Andres Garcia MWF 11:00am - 11:50am	Seats (Total: 20) JMZ 2117
0201	Ana Acedo Garcia MWF 12:00pm - 12:50pm	Seats (Total: 20) JMZ 1117
0301	Barbara Zocal Da Silva TuTh 9:30am - 10:45am	Seats (Total: 20) JMZ 3205
0401	Daniela Hernandez TuTh 11:00am - 12:15pm	Seats (Total: 20) JMZ 2120

SPAN316 **Spanish Translation I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN301; and must have completed or be concurrently enrolled in SPAN303.

Translation of texts into Spanish and/or English. Taught in Spanish.

0101	Barbara Zocal Da Silva MWF 10:00am - 10:50am	Seats (Total: 20) JMZ 3205
0201	Chris Lewis TuTh 12:30pm - 1:45pm	Seats (Total: 20) JMZ 0208

SPAN317 **Translation II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN316.

Translation of non-literary, non-technical texts into Spanish and/or English.

Contact department for information to register for this course.

SPAN325 **Hispanic Linguistics I: Phonetics and Phonology**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN310 or SPAN325. Formerly: SPAN310.

Sociolinguistic approach to Spanish grammar focusing on real-life exploration of the ways linguistic structures change and are used in different parts of the Spanish-speaking world. Taught in Spanish.

0101	Ana Acedo Garcia	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 3205

SPAN331 Spanish Culture, Civilization and Literature I: Medieval Times

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. Taught in Spanish.

0101	Ginette Eldredge	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 3205

SPAN332 Spanish Culture, Civilization and Literature II: Renaissance and Baroque

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

Contact department for information to register for this course.

SPAN333 Spanish Culture, Civilization and Literature III: Modern Times

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. Taught in Spanish.

0101	Mehl Penrose	Seats (Total: 25)
	TuTh 2:00pm - 3:15pm	JMZ 0125

SPAN361 Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. Taught in Spanish.

0101	Maria Herrera Arvay MWF 10:00am - 10:50am	Seats (Total: 25) JMZ 0125
0201	Ginette Eldredge TuTh 11:00am - 12:15pm	Seats (Total: 25) JMZ 2123

SPAN362 **Latin American Literatures and Cultures II: From Independence to Nation Formation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

Contact department for information to register for this course.

SPAN363 **Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. Taught in Spanish.

0101	Juan Carlos Quintero-Herencia MWF 1:00pm - 1:50pm	Seats (Total: 25) JMZ 2207
0201	Laura Demaria TuTh 12:30pm - 1:45pm	Seats (Total: 25) JMZ 2206

SPAN369A **Special Topics in Study Abroad III; Advanced Oral Communication in Spanish**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369B **Special Topics in Study Abroad III; Advanced Academic Writing in Spanish**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369F **Special Topics in Study Abroad III; Spanish Oral Skills through Theatre**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369G **Special Topics in Study Abroad III; Spanish for the Health Professional**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369J **Special Topics in Study Abroad III; Spanish Grammar and Expression**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369M **Special Topics in Study Abroad III; Spanish Language B2**

Credits: 6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369O **Special Topics in Study Abroad III; Spanish Conversation and Oral Skills**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369P **Special Topics in Study Abroad III; Spanish Oral Techniques**

Credits: 2

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Q **Special Topics in Study Abroad III; Spanish Phonetics and Phonology**

Credits: 1

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369R **Special Topics in Study Abroad III; Advanced Reading Skills in Spanish**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369V **Special Topics in Study Abroad III; Advanced Present-Day Spanish Usage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369W **Special Topics in Study Abroad III; Spanish Stylistics: Advanced Spanish Writing and Stylistics**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Y **Special Topics in Study Abroad III; B2 Advanced Level Spanish 1**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN369Z **Special Topics in Study Abroad III; B2 Advanced Level Spanish 2**

Credits: 6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN370 **Spanish for Business I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Credit only granted for: SPAN315 or SPAN370. Formerly: SPAN315.

Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish commercial topics. May include exposure to Spanish business environments. Taught in Spanish.

0101	Chila Hidalgo	Seats (Total: 25)
	MW 2:00pm - 3:15pm	JMZ 2122

SPAN371 **Spanish for the Health Professions**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316).

Exploration of cultural and linguistic skills for the health professions including vocabulary, listening, speaking, reading and strategies. No experience in the professional area necessary. Taught in Spanish.

0101	Evelyn Canabal-Torres	Seats (Total: 25)
	MWF 12:00pm - 12:50pm	JMZ 2123

SPAN372 **Spanish and the Law**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN311 or SPAN316. Credit only granted for: SPAN372 or SPAN359O. Formerly: SPAN359O.

Offers students the opportunity to enhance Spanish linguistic and intercultural communication skills in contexts of legal practice through the translation of a variety of legal documents. Introduces Spanish legal terminology in areas such as immigration, consumer protection, and criminal/employment/housing/family law. Students will learn how to apply these language and cultural skills as future legal practitioners interacting with clients who possess limited English proficiency. Native or fluent guest participants will expose students to legal terminology, registers, and dialects from various Spanish-speaking countries. The goal of the class is to enable students to, at a minimum, conduct intake interviews in a culturally competent fashion with Spanish-speaking clients without the assistance of interpreters. The course is designed to be beneficial for students with varying levels of Spanish language ability, up to and including students who are native or heritage speakers of Spanish. Taught in Spanish

0101	Jose Magro	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	JMZ 2117

SPAN374 **Spanish in the Community**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SPAN303; and (SPAN311 or SPAN316). Or permission of instructor. Credit only granted for: SPAN374 or SPAN359B. Formerly: SPAN359B.

Provides students with context for understanding, communicating with, and working with the Spanish-speaking community. Topics include Latino/a demographics, cultures, communities, work opportunities and local uses of Spanish. Requires outside service-learning work.

0101	Ana Rodriguez	Seats (Total: 20)
	TuTh 9:30am - 10:45am	JMZ 2207

SPAN375 **Spanish in the Life Sciences**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303 and SPAN311; or SPAN316; or permission of instructor. Credit only granted for: SPAN359L or SPAN375. Formerly: SPAN359L.

Communication and critical thinking skills in Spanish through the study of materials related to science. The course engages students in class discussions about a variety of topics in different formats, such as book chapters, articles, film, art, and literary works. The course is divided into five units that will allow the study of specific geographies, topics, and cases in the Spanish-speaking world. Assignments include a research proposal and visits to the National Zoo and the National Museum of Natural History. No technical knowledge is necessary, as we will emphasize the language of science, not the content itself. Taught in Spanish.

0101	Daniela Hernandez	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	JMZ 2120

SPAN386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Junior standing or higher.

Contact department for information to register for this course.

SPAN388W **Writing Center Internship**

(Perm req)

Credits: 1-6 Grading Method: Regular General Education: DSSP

Prerequisite: Permission of the Writing Center (1205 Tawes Hall). Repeatable to 12 credits. Cross-listed with: ENGL388W. Credit only granted for: ENGL388W or SPAN388W.

Examines face-to-face and online writing center theory and practice through readings, exercises, and supervised tutoring. Students investigate the writing process and help other writers to negotiate it.

0101	Thomas Earles	Seats (Total: 20)
	M 3:30pm - 6:00pm Contact instructor or department for details.	TWS 3136
2001	Thomas Earles	Seats (Total: 4)
	Contact instructor or department for details.	

SPAN399 **Independent Study in Spanish**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Specific readings in literature or a translation project under the supervision of a faculty member of the department.

Prerequisite: permission of department.

Contact department for information to register for this course.

SPAN401 **Advanced Composition I**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN302; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN402 **Advanced Composition II**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN401; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

Contact department for information to register for this course.

SPAN408K **Special Topics in Iberian and Latin American Studies; Speaking Up/Out: Women Writers and Feminist Social Movements in Contemporary Latin America**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Prerequisite: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. The feminist song "El violador eres tu" (The Rapist is You) - originally performed by the collective "Las Tesis" in Valparaiso, Chile - has become a global hymn to protest violence against women. The performance was based on the work of anthropologist Rita Segato, whose studies have exposed power structures and the systematic violations of womens rights. By reading contemporary women writers, and by working on contemporary feminist social movements, this course will explore what Segato has defined as "the war against women". Thus, this seminar will explore how feminist subversion of naturalized power relationships have become a social force that is reshaping Latin American culture in the last decades. Particularly, we will explore how contemporary cultural artifacts contest value systems while rejecting hierarchies and norms.

0101	Laura Demaria	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	JMZ 2207

SPAN408Y **Special Topics in Iberian and Latin American Studies; Contemporary Spanish Short Story**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics in (a) the literature and film of Spain, Spanish-speaking Latin America, and U.S. Latina/o communities; (b) Spanish linguistics; and (c) Spanish, Latin American, and U.S. Latino cultural studies. Each topic will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409F **Great Themes of the Hispanic Literatures; Literary Myths and Philosophy in the European Tradition**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409L **Great Themes of the Hispanic Literatures; 20th Century and Contemporary Latin American Short Story**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409O **Great Themes of the Hispanic Literatures; Images of Spain in Contemporary Cinema**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409W **Great Themes of the Hispanic Literatures; Women Writers of Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409X **Great Themes of the Hispanic Literatures; The Spanish Mystery Novel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN409Y **Great Themes of the Hispanic Literatures; Filmmaking in Spain**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

Contact department for information to register for this course.

SPAN422 **Intercultural Communication and Negotiation**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Prerequisite: SPAN370 OR SPAN371 OR SPAN373 OR SPAN 374. Restriction: Junior standing or higher.

Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to intercultural communication, linguistic systems, culture specific perceptions of, and negotiation with, the Spanish-speaking world. Taught in Spanish.

Contact department for information to register for this course.

SPAN425 **Hispanic Linguistics II: Structures of Spanish**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN303; and SPAN311 or SPAN316 or SPAN325.

This course begins with an introduction to general concepts in linguistics, from language function and the brain to communication, culture, and thought, and their relation to other disciplines in the social sciences. The main purpose of this course is to provide an overview of Hispanic linguistics through multiple perspectives, while exploring the areas of Spanish morphology, syntax, and semantics. This course will also focus on the structural tendencies of Spanish through a variety of practical activities. Taught in Spanish.

Jointly offered with SPAN625. Credit granted for SPAN425 or SPAN625.

0101	Elisa Gironzetti	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 2117

SPAN448Q **Special Topics in Latin American Civilization; Culinary Landscapes: Food, Sabor and Image in Hispanic Caribbean Texts**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Intensive independent study of a selected topic related to Latin American civilization.

Prerequisite: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Relevant Hispanic Caribbean literary, musical and historical texts display their images in a culinary space. Images of food, but more specifically, of sabor (flavor, taste: a knowledge or sense coming from flavor) work as metaphors, and as landscapes or seascapes, for the configuration of a singular aesthetic, sensible and political experience. Specifically, the course will discuss the corporeal and sensorial realities excited by this culinary imaginary. Issues of identity, race, gender, politics, and literary representation will be discussed, problematized and questioned. Furthermore, during this class we will put in motion our own critical skills while reading or listening to texts or cultural objects produced in a Hispanic Caribbean society. Students will be expected to participate actively in class, give an oral presentation, write short essays and a final research paper, and complete miscellaneous assignments.

0101	Juan Carlos Quintero-Herencia	Seats (Total: 25)
	MWF 11:00am - 11:50am	JMZ 3120

SPAN449J **Special Topics in Spanish Civilization; Mosaic: Jews, Muslims and the Spanish Experience**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN449Z **Special Topics in Spanish Civilization; Barcelona/ Madrid: Literature & Film in the Contemporary City**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An intensive study of a selected topic related to Spanish civilization.

Contact department for information to register for this course.

SPAN453 **Seeking Adventure and Glory: Don Quixote**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: One of the following: SPAN331, SPAN332, SPAN333, SPAN361, SPAN362, or SPAN363; or permission of instructor. Credit only granted for: SPAN430 or SPAN453. Formerly: SPAN430.

Widely acknowledged as the first modern novel, Don Quixote tells the story of a middle-aged Spanish gentleman who, obsessed with the chivalrous ideals found in romantic tales, decides to take up his lance and sword to defend the helpless and destroy the wicked. Seated upon his horse Rocinante and accompanied by his loyal squire Sancho Panza, Don Quixote sets out on the roads of Spain seeking adventure and glory. The course will consist of a close reading of Don Quixote. We will analyze and comment on the novel at the literal and historical levels, as well as in its symbolic and widely anthropological dimensions. We will also establish a dialogue between Don Quixote and the narrative and philosophical traditions of Europe, United States and Latin America. Taught in Spanish.

Cross-listed with SPAN653.

0101	Hernan De Pinillos	Seats (Total: 20)
	MWF 10:00am - 10:50am	ONLINE

SPAN462 **Twentieth Century Drama**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Significant plays of the twentieth century.

Contact department for information to register for this course.

SPAN464 **Contemporary Spanish Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: SPAN333, SPAN361, SPAN331, SPAN332, SPAN362, or SPAN363.

Spanish poetry from the generation of 1927 to the present.

Contact department for information to register for this course.

SPAN467 **Visions and Fictions from Spain**

Credits: 3 Grading Method: Regular, Pass-Fail

Prerequisite: One course from SPAN331, SPAN332, SPAN333, SPAN361, SPAN362 or SPAN363; or permission of instructor. Recommended: SPAN333. Cross-listed with: CINE467. Credit only granted for: CINE427, CINE467, FILM427, SPAN427, or SPAN467. Formerly: FILM427, CINE427, and SPAN427.

Overview of Spanish cinema from the end of the 19th century through present day Spain. Exploration of the production of literary and cinematic texts in their social, historical, political, religious, and cultural contexts.

0101	Jose Naharro-Calderon	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	JMZ 2207

SPAN469C **Study Abroad Special Topics IV; Composition**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN469D **Study Abroad Special Topics IV; Chilean History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

SPAN479 **Honors Thesis**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail, Audit

Researching and writing an honors thesis under the direction of a professor.

Contact department for information to register for this course.

SPAN495 **Honors Reading**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must be in Spanish and Portuguese Honors; or permission of ARHU-School of Languages, Literatures, and Cultures department.

Supervised reading.

Contact department for information to register for this course.

SPAN605 **Teaching Spanish I**

Credits: 1 Grading Method: Regular, Audit

Prerequisite: Permission of ARHU-School of Languages, Literatures, and Cultures department. Restriction: Must be a Spanish teaching assistant.

Methods and materials for teaching Spanish in higher education.

Restricted to SPAP graduate students or by permission of instructor only.

0101	Elisa Gironzetti	Seats (Total: 10)
	M 5:00pm - 5:50pm	JMZ 2125

SPAN625 **Introduction to Hispanic Linguistics I:Basic Concepts**

Credits: 3 Grading Method: Regular, Audit

Introduction to basic terms and definition in Hispanic Linguistics. Fundamental aspects of phonology, morphology, syntax, semantics, sociolinguistics, and pragmatics.

Jointly offered with SPAN425. Credit granted for SPAN425 or SPAN625.

0101	Elisa Gironzetti	Seats (Total: 20)
	MW 3:30pm - 4:45pm	JMZ 2117

SPAN653 **Seeking Adventure and Glory: Don Quixote**

Credits: 3 Grading Method: Regular

Widely acknowledged as the first modern novel, Don Quixote tells the story of a middle-aged Spanish gentleman who, obsessed with the chivalrous ideals found in romantic tales, decides to take up his lance and sword to defend the helpless and destroy the wicked. Seated upon his horse Rocinante and accompanied by his loyal squire Sancho Panza, Don Quixote sets out on the roads of Spain seeking adventure and glory. The course will consist of a close reading of Don Quixote. We will analyze and comment on the novel at the literal and historical levels, as well as in its symbolic and widely anthropological dimensions. We will also establish a dialogue between Don Quixote and the narrative and philosophical traditions of Europe, United States and Latin America.

Cross-listed with SPAN453. Credit only granted for SPAN430, SPAN453, or SPAN653.

0101	Hernan De Pinillos	Seats (Total: 20)
	MWF 10:00am - 10:50am	ONLINE

SPAN699 **Independent Study in Spanish**

Credits: 1-3 Grading Method: Regular, Audit

This course is designed to provide graduate students an opportunity to pursue independent study under the supervision of a member of the department.

Contact department for information to register for this course.

SPAN798A **Open Seminar; Postrevolutionary Mexico: A Transnational(ist) Perspective**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar aims to help students research and formulate questions about Mexican cultural production in the 1920s, 30s, and 40s. Of specialconsideration is the way in which this period represented for many writers and artists in Mexico an intense period of political and aesthetic possibility, invention, and renovation. In part, the course will focus on how the apparent promise of the Revolution and the flourishing of Mexican culture drew many figures from around the world, including, to name a few, Edward Weston, Tina Modotti, Andre Breton, Sergei Eisenstein, and Mariana Yampolsky. Also significant are patrons of the arts with cosmopolitan and transnational biographies and educational training, such as Antonieta Rivas Mercado, Anita Brenner, and Frances Toor, who were essential for supporting and disseminating the work of figures such as Diego Rivera, Frida Kahlo, and writers movements like Los Contemporaneos.

0101	Ryan Long	Seats (Total: 10)
	Th 4:00pm - 6:30pm	JMZ 1215

SPAN798B **Open Seminar; U.S. LatinX Diasporas**

Credits: 3 Grading Method: Regular, Audit

Cross-listed with AMST798B. Credit only granted for SPAN798B or AMST798B. This seminar focuses on LatinX Diasporas in the United States in the 20th Century. We will study representative Latinx and critical literature in relation to decolonization/decoloniality, hispanicity, borders, violence, post/memory, among other topics. In recent decades, immigration from Latin America, the Caribbean, and Spain, and Latinx migrations across the United States have vastly diversified, translocalized, and complicated Latinx discourses, making the X the sign of the times. This course seeks to examine the field through interdisciplinary and intersectional critical lenses. Readings mostly in English; discussions and writing in Spanish or English.

0101	Ana Rodriguez	Seats (Total: 10)
	W 5:00pm - 7:30pm	JMZ 2125

SPAN798V **Open Seminar; History of Spanish Language: Texts and Contexts**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

This seminar will explore the origins and evolution of the Spanish language. In addition to the most relevant scholarly studies in the field, we will analyze an ample repertoire of literary texts from the Castilian Middle Ages to the Baroque period in the Americas. Restricted to SPAN graduate student or by permission of instructor.

0101	Carmen Benito-Vessels	Seats (Total: 10)
	Tu 3:30pm - 6:00pm	JMZ 2207

SPAN799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPAN898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SPAN899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SPHL Public Health Fall 2022

SPHL100 **Foundations of Public Health**

Credits: 3 Grading Method: Regular

Restriction: Must be in a major in SPHL-School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that take into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0102	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0103	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0104	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0105	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0106	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0107	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion

0108	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) ESJ 2208 ONLINE SPH 0227	Discussion
0109	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ESJ 2208 ONLINE ATL 2316	Discussion
0110	Sylvette La Touche-Howard MW 10:00am - 10:50am Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ESJ 2208 ONLINE ATL 2316	Discussion
0201	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 8:00am - 8:50am	Seats (Total: 20) ESJ 1202 ONLINE ATL 2428	Discussion
0202	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 9:00am - 9:50am	Seats (Total: 20) ESJ 1202 ONLINE ATL 2428	Discussion
0203	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 10:00am - 10:50am	Seats (Total: 20) ESJ 1202 ONLINE ATL 2428	Discussion
0204	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 11:00am - 11:50am	Seats (Total: 20) ESJ 1202 ONLINE ATL 2428	Discussion
0205	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 1202 ONLINE CCC 1200	Discussion

0206	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 1202 ONLINE CCC 1200	Discussion
0207	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 2:00pm - 2:50pm	Seats (Total: 20) ESJ 1202 ONLINE CCC 1200	Discussion
0208	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 3:00pm - 3:50pm	Seats (Total: 20) ESJ 1202 ONLINE CCC 1200	Discussion
0209	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 12:00pm - 12:50pm	Seats (Total: 20) ESJ 1202 ONLINE ATL 2316	Discussion
0210	Sylvette La Touche-Howard MW 12:00pm - 12:50pm Class time/details on ELMs F 1:00pm - 1:50pm	Seats (Total: 20) ESJ 1202 ONLINE ATL 2316	Discussion
FC01	Tracy Zeeger TuTh 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) PLS 1111	

SPHL246 **Terp Restoration**

(Perm req)

Credits: 1 Grading Method: Regular, Pass-Fail

Restriction: Students must be undergraduate majors within the School of Public Health; and permission of instructor.

This lab course is designed to assist students in improving academic strategies, learning time management practices, interacting with the faculty and greater campus community, and developing professional career aspirations. The focus will be on an exploration of the academic environment, campus resources, self-discovery tools, and skill development. Utilizing an interactive experience through facilitated discussion that develops positive relationships, students will actively explore academic opportunities offered through the School of Public Health and the University of Maryland.

0101	Renee Stokes Tu 9:30am - 10:45am	Seats (Total: 20) SPH 0116B
0201	Taylor Sanders Tu 9:30am - 10:45am *Restricted to new SPH transfer students.*	Seats (Total: 20) SPH 0116A

SPHL291 **Does Science Support Nontraditional Healing Practices?**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSNS, SCIS

Recommended: Successful completion of English composition course.

Does yoga improve the health of wounded warriors and/or breast cancer survivors? Can mindfulness enhance your business success and family relationships, or is it social media hype? Do you know what reflexology is, and does it help reduce your personal stress level? Increasing numbers of people are using nutritional supplements, meditation, yoga and other forms of exercise, acupuncture and experiences in nature to reduce stress levels and improve overall health and well-being. In the media, scientists to celebrities have alternately endorsed or rejected claims about how these and other nontraditional health practices benefit health and well-being. Students will sample some of these nontraditional health practices and explore whether these practices can enhance their own well-being. General scientific methods for health research will be introduced and students will use this knowledge to evaluate the existing scientific research on these practices. Students will also evaluate whether popular and media translation of scientific research on these practices is fact-based.

0101	Robin Puett Tu 9:30am - 10:45am Th 9:30am - 10:45am	Seats (Total: 25) SPH 0305 SPH 0305

SPHL333 **Fundamentals of Undergraduate Teaching for Education Assistants and Mentors (UTEAM)**

(Perm req)

Credits: 1 | Grading Method: Regular, Pass-Fail

Corequisite: SPHL399. Restriction: Permission of the instructor; and permission of the School of Public Health. Additional information: This course must be taken concurrently with SPHL399 the first term in which a student is a UTA. Preference is given to students within an SPHL major.

Supports the professional and personal development of UG students in the UTEAM program. Must be completed concurrently with the first semester of providing UTEAM support to a specific course. UTEAM members are dedicated student learners who provide peer education support for specific course as part of the teaching team and emphasizes: 1) introduction to teaching, learning, literature and practice, 2) collaboration with other UTEAM members, faculty and staff as a learning community, and 3) reflection on the knowledge and skills developed through course participation.

0101	Cynthia Kershaw Class time/details on ELMs	Seats (Total: 35) ONLINE

SPHL399 **Academic Peer Teaching and Mentoring in Public Health**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

An independent study course for the Undergraduate Teaching and Mentoring (UTEAM) program within the School of Public Health. Students will apply evidence-based research while assisting peers with the understanding and application of course content. Specific responsibilities may vary dependent upon the course instructor. The primary roles of the UTEAM members will be to provide in-class support and/or external course support through review sessions, discussions sessions, laboratory support, group tutoring and office hours.

Contact department for information to register for this course.

SPHL600 **Foundations of Public Health**

Credits: 3 Grading Method: Regular

Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL100, PHSC300 or SPHL600.

An overview of the goals, functions, and methods of public health. After an introduction to the core concepts and tools used in public health research and practice, applications of these methodologies are considered in the context of current controversies/problems in public health. Students work together to develop strategies for prevention and control that taken into consideration different points of view, outside research, and impacts on individuals and communities.

0101	Sylvette La Touche-Howard Class time/details on ELMs Th 3:00pm - 4:00pm	Seats (Total: 12) ONLINE ONLINE	 Discussion
PLP1	Sylvette La Touche-Howard Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 35) ONLINE	

SPHL601 **Core Concepts in Public Health**

Credits: 1 Grading Method: Regular

Restriction: Must be a Master's of Public Health (MPH) or Master's of Health Administration (MHA) student within the School of Public Health.

Introduces students to the history, functions, systems, policies, and models of public health practice in the United States and globally. The course offers seminars, interactive activities, and assessments aimed at establishing a baseline understanding of public health necessary for higher level and integrative learning in subsequent public health courses.

0101	Priscilla Novak **Meets August 29, 2022 - October 14, 2022** M 6:30pm - 8:30pm	Seats (Total: 90) SPH 1312
PLB1	Danielle Catona **Meets October 17, 2022 - December 12, 2022** Class time/details on ELMs *Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 17) ONLINE
PLH1	Danielle Catona **Meets October 17, 2022 - December 12, 2022** Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 23) ONLINE
PLP1	Danielle Catona **Meets October 17, 2022 - December 12, 2022** Class time/details on ELMs *Must be in the Health Administration, Online Program. For permission to enroll, contact oes@umd.edu.*	Seats (Total: 1) ONLINE

SPHL602 **Foundations of Epidemiology and Biostatistics**

Credits: 4 Grading Method: Regular

Recommended: Recommend SPHL603 as a co-requisite course. Restriction: Must be a graduate student within the School of Public Health. Credit only granted for: SPHL602 or EPIB610 and EPIB650.

An introduction to conceptual and practical tools from epidemiology and biostatistics that are necessary for the study of public health problems. Students learn epidemiologic concepts and methods, and basic statistical concepts and procedures used in public health research through applications, hands-on experience, and interpretations of statistical findings.

0101	Jamie Trevitt, Typhanye Dyer MW 4:15pm - 6:15pm	Seats (Total: 94) SPH 1312

PLB1	Jamie Trevitt	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.		
PLH1	Jamie Trevitt	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	
	Must be in Public Health Practice and Policy, Online.		
PLP1	Jamie Trevitt	Seats (Total: 1)	
	Class time/details on ELMs	ONLINE	
	Must be in the Health Administration, Online Program. For permission to enroll, contact oes@umd.edu.		

SPHL603 Public Health Data Laboratory

Credits: 1 Grading Method: Regular

Corequisite: SPHL602. Restriction: Must be a graduate student within the School of Public Health.

An introduction to the statistical software necessary to implement the epidemiology and biostatistics concepts covered in the course EPIB 602, Foundations of Epidemiology and Biostatistics through hands-on exercises.

0101	Jamie Trevitt	Seats (Total: 24)	
	W 6:30pm - 7:30pm	SPH 0302	Lab
0102	Jamie Trevitt	Seats (Total: 24)	
	W 6:30pm - 7:30pm	SPH 0308	Lab
0103	Jamie Trevitt	Seats (Total: 24)	
	W 7:30pm - 8:30pm	SPH 0302	Lab
0104	Jamie Trevitt	Seats (Total: 24)	
	W 7:30pm - 8:30pm	SPH 0308	Lab
PLB1	Jamie Trevitt	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.		

PLH1	Jamie Trevitt	Seats (Total: 23)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in Public Health Practice and Policy, Online.		
PLP1	Jamie Trevitt	Seats (Total: 1)	
	Class time/details on ELMs	ONLINE	Lab
	Must be in the Health Administration, Online Program. For permission to enroll, contact oes@umd.edu.		

SPHL612 **Research Ethics**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Restriction: Must be a graduate student in the School of Public Health. Credit only granted for: EPIB641, KNES689Y or SPHL612. Formerly: EPIB641, KNES689Y.

Overview and discussion of ethical issues that face public health researchers.

0101	Stephen Roth	Seats (Total: 12)	
	Meets October 17, 2022 - December 12, 2022		
	F 9:00am - 10:50am	SPH 0301	

SPHL620 **Leadership, Teams, and Coalitions: Policy to Advocacy**

Credits: 2 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Must have completed SPHL610. Restriction: Must be a graduate student in the School of Public Health.

Students learn team building, leadership, and advocacy skills through the development and presentation of a policy brief on an urgent public health issue. The class will use a combination of brief lectures, discussions, and planned activities on how to develop a policy briefing. Students will have an inter-professional experience during which they will discuss possible approaches to developing policies on their public health issues while practicing team building skills. Class will culminate with presentation of policy briefs through a persuasive advocacy speech.

0101	Danielle Catona	Seats (Total: 90)	
	M 6:45pm - 8:45pm	ATL 2324	
PLB1	Sherry Maykrantz	Seats (Total: 17)	
	Class time/details on ELMs	ONLINE	
	Must be in Behavioral and Community Health, Online. All other graduate students must request permission. Contact oes@umd.edu.		

PLH1	Sherry Maykrantz Class time/details on ELMs *Must be in Public Health Practice and Policy, Online.*	Seats (Total: 27) ONLINE	
PLP1	Sherry Maykrantz Class time/details on ELMs *Must be in Health Administration, Online.*	Seats (Total: 3) ONLINE	

STAT Statistics and Probability Fall 2022

STAT100 **Elementary Statistics and Probability**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: MS | General Education: FSAR, FSMA

Prerequisite: MATH110, MATH112, MATH113, or MATH115; or permission of CMNS-Mathematics department; or must have math eligibility of STAT100 or higher and math eligibility is based on the Math Placement Exam or the successful completion of Math 003 with appropriate eligibility. Restriction: Must not have completed MATH111; or must not have completed any MATH or STAT course with a prerequisite of MATH141. Cross-listed with: DATA100. Credit only granted for: DATA100, STAT100, or MATH107.

Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

0111	Matthew Griffin MWF 11:00am - 11:50am M 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion
0112	Matthew Griffin MWF 11:00am - 11:50am M 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion
0121	Matthew Griffin MWF 11:00am - 11:50am Tu 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion
0122	Matthew Griffin MWF 11:00am - 11:50am Tu 11:00am - 12:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	 Discussion

0123	Matthew Griffin MWF 11:00am - 11:50am Tu 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0124	Matthew Griffin MWF 11:00am - 11:50am Tu 2:00pm - 3:15pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0131	Matthew Griffin MWF 11:00am - 11:50am W 9:30am - 10:45am	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0141	Matthew Griffin MWF 11:00am - 11:50am Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0211	Matthew Griffin MWF 12:00pm - 12:50pm M 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0212	Matthew Griffin MWF 12:00pm - 12:50pm M 2:00pm - 3:15pm	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion
0221	Matthew Griffin MWF 12:00pm - 12:50pm Tu 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0222	Matthew Griffin MWF 12:00pm - 12:50pm Tu 11:00am - 12:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0223	Matthew Griffin MWF 12:00pm - 12:50pm Tu 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0202 PHY 4206	Discussion
0224	Matthew Griffin MWF 12:00pm - 12:50pm Tu 2:00pm - 3:15pm	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion

0231	Matthew Griffin MWF 12:00pm - 12:50pm W 9:30am - 10:45am	Seats (Total: 28) ESJ 0202 PHY 4206	Discussion
0241	Matthew Griffin MWF 12:00pm - 12:50pm Th 9:30am - 10:45am	Seats (Total: 29) ESJ 0202 PHY 4206	Discussion
0311	Archana Khurana MWF 2:00pm - 2:50pm M 11:00am - 12:15pm	Seats (Total: 30) ESJ 0224 PHY 4206	Discussion
0312	Archana Khurana MWF 2:00pm - 2:50pm M 12:30pm - 1:45pm	Seats (Total: 25) ESJ 0224 PHY 4206	Discussion
0321	Archana Khurana MWF 2:00pm - 2:50pm W 11:00am - 12:15pm	Seats (Total: 28) ESJ 0224 PHY 4206	Discussion
0322	Archana Khurana MWF 2:00pm - 2:50pm W 12:30pm - 1:45pm	Seats (Total: 25) ESJ 0224 PHY 4206	Discussion
0331	Archana Khurana MWF 2:00pm - 2:50pm Th 9:30am - 10:45am	Seats (Total: 28) ESJ 0224 PHY 4206	Discussion
0333	Archana Khurana MWF 2:00pm - 2:50pm Th 12:30pm - 1:45pm	Seats (Total: 30) ESJ 0224 PHY 4206	Discussion
FC01	Ishfaaq Mohammed Imtiyas MW 3:00pm - 4:15pm Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHE 2108 PHY 0405	Discussion
FC02	Ishfaaq Mohammed Imtiyas MW 3:00pm - 4:15pm Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 35) CHE 2108 PHY 2213	Discussion

STAT110 **Applications of R for Data Science**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: STAT100, (OR MATH 135 OR any 400 level STAT course). Cross-listed with: DATA110.

This course is intended to prepare students for courses requiring computation with R, providing powerful and easy to use tools for statistical analysis.

Credit only granted for DATA110 or STAT110.

0101	Susan Mazzullo **Meets August 29, 2022 - October 10, 2022** Class time/details on ELMs	Seats (Total: 30) ONLINE

STAT386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Prerequisite: Must have learning proposal approved by the CMNS-Mathematics Department.

2801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 10)
3903	Antoine Mellet Contact instructor or department for details.	Seats (Total: 10)
5001	Paul Smith Contact instructor or department for details.	Seats (Total: 10)

STAT400 **Applied Probability and Statistics I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH131, MATH141); or students who have taken courses with comparable content may contact the department. Cross-listed with: DATA400. Credit only granted for: DATA400, ENEE324, or STAT400.

Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.

0111	Ke Chen MWF 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) ARM 0135 MTH 0106	 Discussion

0112	Ke Chen MWF 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) ARM 0135 MTH 0403	Discussion
0113	Ke Chen MWF 11:00am - 11:50am Tu 9:30am - 10:20am	Seats (Total: 30) ARM 0135 MTH 0104	Discussion
0121	Ke Chen MWF 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) ARM 0135 MTH 0103	Discussion
0122	Ke Chen MWF 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) ARM 0135 MTH 0105	Discussion
0123	Ke Chen MWF 11:00am - 11:50am Tu 12:30pm - 1:20pm	Seats (Total: 30) ARM 0135 MTH 0104	Discussion
0131	Ke Chen MWF 11:00am - 11:50am Tu 3:30pm - 4:20pm	Seats (Total: 30) ARM 0135 MTH 0101	Discussion
0132	Ke Chen MWF 11:00am - 11:50am Tu 3:30pm - 4:20pm	Seats (Total: 30) ARM 0135 MTH 0105	Discussion
0133	Ke Chen MWF 11:00am - 11:50am Tu 3:30pm - 4:20pm	Seats (Total: 30) ARM 0135 MTH 0106	Discussion
0211	Mickael Latocca MWF 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 30) BRB 1101 MTH B0425	Discussion
0212	Mickael Latocca MWF 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 30) BRB 1101 MTH 0403	Discussion

0213	Mickael Latocca MWF 12:00pm - 12:50pm Th 9:30am - 10:20am	Seats (Total: 27) BRB 1101 MTH 0104	Discussion
0221	Mickael Latocca MWF 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 30) BRB 1101 MTH 0103	Discussion
0222	Mickael Latocca MWF 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 30) BRB 1101 MTH 0105	Discussion
0223	Mickael Latocca MWF 12:00pm - 12:50pm Th 12:30pm - 1:20pm	Seats (Total: 30) BRB 1101 MTH 0104	Discussion
0231	Mickael Latocca MWF 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 30) BRB 1101 MTH B0425	Discussion
0232	Mickael Latocca MWF 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 30) BRB 1101 MTH 0105	Discussion
0233	Mickael Latocca MWF 12:00pm - 12:50pm Th 3:30pm - 4:20pm	Seats (Total: 30) BRB 1101 MTH 0101	Discussion
0311	James Conway TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 33) BRB 1101 MTH 0201	Discussion
0312	James Conway TuTh 2:00pm - 3:15pm W 8:00am - 8:50am	Seats (Total: 32) BRB 1101 MTH 0106	Discussion
0321	James Conway TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 32) BRB 1101 MTH 0201	Discussion

0322	James Conway TuTh 2:00pm - 3:15pm W 9:00am - 9:50am	Seats (Total: 33) BRB 1101 MTH 0106	Discussion
0331	James Conway TuTh 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 33) BRB 1101 MTH 0306	Discussion
0332	James Conway TuTh 2:00pm - 3:15pm W 11:00am - 11:50am	Seats (Total: 32) BRB 1101 MTH 0101	Discussion

STAT401 **Applied Probability and Statistics II**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410). Additional information: Not acceptable toward graduate degrees in MATH/STAT/AMSC.

Point estimation - unbiased and consistent estimators. Interval estimation. Minimum variance and maximum likelihood estimators. Testing of hypotheses. Regression, correlation and analysis of variance. Sampling distributions. Elements of non-parametric methods.

0111	Archana Khurana MWF 12:00pm - 12:50pm Th 8:00am - 8:50am	Seats (Total: 27) IRB 0318 PHY 1219	Discussion
0112	Archana Khurana MWF 12:00pm - 12:50pm Th 9:00am - 9:50am	Seats (Total: 27) IRB 0318 PHY 1219	Discussion
0113	Archana Khurana MWF 12:00pm - 12:50pm Th 10:00am - 10:50am	Seats (Total: 27) IRB 0318 PHY 1219	Discussion
0301	Natalia Tchetcherina MWF 1:00pm - 1:50pm	Seats (Total: 27) MTH 0103	
0401	Jonathan Fernandes MWF 2:00pm - 2:50pm	Seats (Total: 27) CHM 2201	
0501	Mestiyage Gunatilleka TuTh 11:00am - 12:15pm	Seats (Total: 27) CHE 2145	

STAT410 **Introduction to Probability Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: SURV410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0201	Jonathan Fernandes MWF 1:00pm - 1:50pm	Seats (Total: 33) PHY 2106
0301	Terence Long MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2124
0401	Mestiyage Gunatilleka TuTh 9:30am - 10:45am	Seats (Total: 30) MTH 0409
0501	Sandra Cerrai TuTh 11:00am - 12:15pm	Seats (Total: 33) CSI 2118
0601	Jose Rigoberto Enrique Zelada Cifuentes TuTh 12:30pm - 1:45pm	Seats (Total: 25) MTH 0102

STAT420 **Theory and Methods of Statistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (SURV410, STAT410). Cross-listed with: SURV420. Credit only granted for: STAT420 or SURV420.

Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

0101	Jonathan Fernandes MWF 11:00am - 11:50am	Seats (Total: 30) PHY 2211
0201	Jian Lun Xu TuTh 5:00pm - 6:15pm	Seats (Total: 30) PHY 2106

STAT426 **Introduction to Data Science and Machine Learning**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Minimum grade of C- in MATH241 or MATH340; and minimum grade of C- in MATH240, MATH461 or MATH341; and minimum grade of C- in STAT400 or STAT410; students who have taken courses with content comparable to STAT400/410 may request permission of the instructor. Credit only granted for: STAT426 or CMSC320.

An introductory course to the recent developments in the fields of data science and machine learning. Emphasis will be given to mathematical and statistical understanding of commonly used methods and processes.

0101	Vincent Lyzinski TuTh 12:30pm - 1:45pm	Seats (Total: 25) PHY 1204

STAT430 **Introduction to Statistical Computing with SAS**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT400, STAT410); and must have completed or be concurrently enrolled in STAT401 or STAT420; students who do not meet the STAT401 or STAT420 requirement but who have taken a statistics course may contact the math department to confirm eligibility.

Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

0201	Hatice Sahinoglu MWF 12:00pm - 12:50pm	Seats (Total: 28) MTH 0303
0301	Hatice Sahinoglu MWF 1:00pm - 1:50pm	Seats (Total: 28) MTH 0303
0401	Timothy Pilachowski TuTh 3:30pm - 4:45pm	Seats (Total: 30) MTH 0303
0501	Christine Nickel TuTh 5:00pm - 6:15pm	Seats (Total: 30) PHY 2214

STAT440 **Sampling Theory**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (STAT401, STAT420). Credit only granted for: STAT440 or SURV440.

Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.

0101	Paul Smith MWF 10:00am - 10:50am	Seats (Total: 33) PHY 2213
0201	Natalia Tchetcherina MWF 11:00am - 11:50am	Seats (Total: 33) CHM 2201

STAT464 **Introduction to Biostatistics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed one semester of calculus. Restriction: Junior standing or higher. Credit only granted for: BIOE372 or STAT464. Additional information: Not acceptable toward degrees in MATH/STAT.

Probabilistic models. Sampling. Some applications of probability in genetics. Experimental designs. Estimation of effects of treatments. Comparative experiments. Fisher-Irwin test. Wilcoxon tests for paired comparisons.

0101	Raluca Rosca MWF 1:00pm - 1:50pm	Seats (Total: 25) MTH 0307

STAT470 **Actuarial Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Recommended: STAT400.

Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

0101	Natalia Tchetcherina MWF 10:00am - 10:50am	Seats (Total: 33) CHM 2201
0201	Matthew Griffin MWF 2:00pm - 2:50pm	Seats (Total: 33) PHY 2211

STAT498A **Selected Topics in Statistics**

(Perm req)

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

Contact department for information to register for this course.

STAT600 **Probability Theory I**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: STAT410.

Probability space; distribution functions and densities; Poissson limit theoreom; de Moivre-Laplace theorem; measure-theoretic definition of expectation; classification of measures on R; convergence of random variables; Radon-Nikodym theorem;LP spaces; conditional probabilities; independence of events, sigma-algebras and random variables; Bayes' theo rem; pi-systems and Dynkin systems; discrete Markov chains; random walks; gambler's ruin problem; Markov chains on a general phase space; Borel-cantelli lemmas; Kolmogorov inequality; three series theorem; laws of large numbers.

0101	Yu Gu	Seats (Total: 27)
	MW 3:30pm - 4:45pm	MTH 0201

STAT689 **Research Interactions in Statistics**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

The students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) research group. Format varies, but includes regular meetings, readings and presentations of material. See graduate program's online syllabus or contact the graduate program director for more information.

Contact department for information to register for this course.

STAT700 **Mathematical Statistics I**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: STAT410; or students who have taken courses with comparable content may contact the department.

Sampling distributions including noncentral chi-squared, t, F. Exponential families, completeness. Sufficiency, factorization, likelihood ratio. Decision theory, Bayesian methods, minimax principle. Point estimation. Lehmann-Scheffe and Cramer-Rao theorems. Set estimation.

Offered fall only.

0101	Eric Slud	Seats (Total: 20)
	MWF 9:00am - 9:50am	MTH 0103

STAT702 **Survival Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT410 and STAT420; or students who have taken courses with comparable content may contact the department; or permission of instructor.

Concepts/definitions of survival functions, hazard rate or hazard function, cumulative hazard functions, mean residual life, inversion formulas; Parametric models: exponential distribution, Weibull distribution; Censored/incomplete data and real data examples; right censored data, doubly censored data, interval censored data, truncated data; Nonparametric maximal likelihood estimator for the lifetime distribution under different types of censoring (e.g., Kaplan-Meier estimator), self-consistency estimators, the EM algorithm, applications of the empirical likelihood; Semiparametric models: accelerated lifetime model, proportional hazard model, the Cox model; Goodness of fit tests and diagnostic methods for model checking.

0101	Joan Ren	Seats (Total: 20)
	TuTh 12:30pm - 1:45pm	MTH 1311

STAT705 **Computational Statistics**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT700 or STAT420. Recommended: Have some programming experience (any language). Credit only granted for: STAT705 or STAT798C. Formerly: STAT798C.

Modern methods of computational statistics and their application to both practical problems and research. S-Plus and SAS programming with emphasis on S-Plus. S-Plus objects and functions, and SAS procedures. Topics include data management and graphics, Monte Carlo and simulation, bootstrapping, numerical optimization in statistics, linear and generalized linear models, nonparametric regression, time series analysis.

0101	Takumi Saegusa	Seats (Total: 20)
	TuTh 2:00pm - 3:15pm	MTH B0425

STAT740 **Linear Statistical Models I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT700 or STAT420.

Least squares, general linear models, estimability and Gauss-Markov theorem. Simple and multiple linear regression, analysis of residuals and diagnostics, polynomial models, variable selection. Qualitative predictors, one and two way analysis of variance, multiple comparisons, analysis of covariance. Nonlinear least squares. High-level statistical computer software will be used for data analysis throughout the course.

0101	Benjamin Kedem	Seats (Total: 20)
	MWF 2:00pm - 2:50pm	MTH 1311

STAT770 **Analysis of Categorical Data**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: STAT430 and STAT420; or permission of CMNS-Mathematics department.

Loglinear and logistic models. Single classification, two-way classification; contingency tables; tests of homogeneity and independence models, measures of association, distribution theory. Bayesian methods. Incomplete contingency tables. Square contingency tables - symmetry. Extensions to higher dimensional contingency tables.

0101	Paul Smith	Seats (Total: 20)
	MWF 1:00pm - 1:50pm	MTH 0104

STAT799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

STAT808A **Selected Topics in Probability**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

STAT818A **Selected Topics in Statistics**

Credits: 1-3 Grading Method: Regular, Audit

Advanced topics of current interest.

Contact department for information to register for this course.

STAT898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

STAT899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

SURV Survey Methodology Fall 2022

SURV400 **Fundamentals of Survey and Data Science**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: STAT100; or permission of BSOS-Joint Program in Survey Methodology department. Restriction: Course open to SURV certificate students, SURV Advanced Special Students, and SURV undergraduate minors. Graduate students from other departments may enroll with permission from the department. Credit only granted for: SURV699M or SURV400. Formerly: SURV699M.

The course introduces the student to a set of principles of survey and data science that are the basis of standard practices in these fields. The course exposes the student to key terminology and concepts of collecting and analyzing data from surveys and other data sources to gain insights and to test hypotheses about the nature of human and social behavior and interaction. It will also present a framework that will allow the student to evaluate the influence of different error sources on the quality of data.

PLS1	Ruben Bach	Seats (Total: 20)
	Meets September 7, 2022 - November 30, 2022	
	W 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV410 Introduction to Probability Theory

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 1 course with a minimum grade of C- from (MATH240, MATH461, MATH341); and 1 course with a minimum grade of C- from (MATH340, MATH241). Cross-listed with: STAT410. Credit only granted for: STAT410 or SURV410.

Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

0201	Jonathan Fernandes	Seats (Total: 33)
	MWF 1:00pm - 1:50pm	PHY 2106
0301	Terence Long	Seats (Total: 33)
	MWF 2:00pm - 2:50pm	PHY 2124
0401	Mestiyage Gunatilleka	Seats (Total: 30)
	TuTh 9:30am - 10:45am	MTH 0409
0501	Sandra Cerrai	Seats (Total: 33)
	TuTh 11:00am - 12:15pm	CSI 2118

0601	Jose Rigoberto Enrique Zelada Cifuentes	Seats (Total: 25)
	TuTh 12:30pm - 1:45pm	MTH 0102

SURV615 **Statistical Modeling and Machine Learning I**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: Must have basic R Programming skills; and must have completed a two course sequence in probability and statistics; or students who have comparable content may contact the department for permission. Restriction: Must be in Survey Methodology (Master's) program; or permission of instructor.

This is the first course in a two-term sequence in applied statistical methods and machine learning that are the basis in handling complex datasets. The topics covered include: overview on the quantitative research, linear regression, analysis of variance, inference, prediction, model diagnostics and selection and resampling methods. The emphasis will be to understand and apply the methods.

It runs concurrently with the University of Michigan course.

0101	Sunghee Lee **Meets August 29, 2022 - December 9, 2022**	Seats (Total: 20)
	Tu 9:30am - 12:00pm	LEF 1208
PCA1	Sunghee Lee	Seats (Total: 10)
	Tu 9:30am - 12:00pm	LEF 1208
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.	

SURV617 **Applications of Statistical Modeling**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: SURV615 and SURV616; or permission of instructor. Credit only granted for: SURV617, SURV746, or SURV699R. Formerly: SURV699R and SURV746.

Designed for students on both the social science and statistical tracks for the two programs in survey methodology, will provide students with exposure to applications of more advanced statistical modeling tools for both substantive and methodological investigations that are not fully covered in other MPSM or JPSM courses. Modeling techniques to be covered include multilevel modeling (with an application to methodological studies of interviewer effects), structural equation modeling (with an application of latent class models to methodological studies of measurement error), classification trees (with an application to prediction of response propensity), and alternative models for longitudinal data (with an application to panel survey data from the Health and Retirement Study). Discussions and examples of each modeling technique will be supplemented with methods for appropriately handling complex sample designs when fitting the models. The class will focus on practical applications and software rather than extensive theoretical discussions.

0101	Yajuan Si **Meets August 29, 2022 - December 9, 2022** Tu 1:00pm - 3:30pm	Seats (Total: 20) LEF 2208

SURV621 **Fundamentals of Data Collection I**

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

First semester of a two-semester sequence that provides a broad overview of the processes that generate data for use in social science research. Students will gain an understanding of different types of data and how they are created, as well as their relative strengths and weaknesses. A key distinction is drawn between data that are designed, primarily survey data, and those that are found, such as administrative records, remnants of online transactions, and social media content. The course combines lectures, supplemented with assigned readings, and practical exercises. In the first semester, the focus will be on the error that is inherent in data, specifically errors of representation and errors of measurement, whether the data are designed or found. The psychological origins of survey responses are examined as a way to understand the measurement error that is inherent in answers. The effects of the mode of data collection (e.g., mobile web versus telephone interview) on survey responses also are examined.

It runs concurrently with the University of Michigan course.

0101	Frederick Conrad, Christopher Antoun **Meets August 29, 2022 - December 9, 2022** M 3:30pm - 6:30pm	Seats (Total: 25) LEF 1208
PCA1	Frederick Conrad, Christopher Antoun M 3:30pm - 6:30pm *Must be in Applied Political Analytics (MS). All other graduate Students must request permission. Contact oes@umd.edu.*	Seats (Total: 10) LEF 1208

SURV626 **Sampling**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: Permission of BSOS-Joint Program in Survey Methodology department; and must have taken at least a graduate level statistics course or an undergraduate level advanced statistics course.

Practical aspects of sample design. The course will cover the main techniques used in sampling practice: simple random sampling, stratification, systematic selection, cluster sampling, multistage sampling, and probability proportional to size sampling. The course will also cover sampling frames, cost models, and sampling error (variance) estimation techniques.

PLS1	Raphael Nishimura	Seats (Total: 15)
	Meets October 13, 2022 - December 8, 2022	
	Th 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV627 **Experimental Design for Surveys**

(Perm req)

Credits: 2 Grading Method: Regular, Audit

Prerequisite: Basic knowledge of data analysis. Familiarity with the R programming language and the RStudio IDE. Recommended: Experience in the use of SAS or STATA statistical analysis software. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Many of the questions we are interested in as researchers and practitioners are of a causal nature. We act upon the world; how can we tell if our actions have impact? How can we decide if an intervention would get us closer to our goals? In this course, we introduce the basic concepts from causal inference and econometrics, and show what makes a valid causal claim, and what would undo it. We then demonstrate how experiments can be used to evaluate causal hypotheses, and what options are available to conduct experiments in practice. Having discussed experimental data collection, we turn to the analysis of experiments, show how this, again, is linked to the logic of causal inference, and how to work with experimental data. We discuss how to design studies so that statistical inferences are informative and reliable. Next, we cover situations in which experiments might not be possible, and show how these can be addressed through study design ex ante and ex post through analysis.

Contact department for information to register for this course.

SURV632 **Cognition, Communication and Survey Measurement**

Credits: 3 Grading Method: Regular, Audit

Major sources of survey error-such as reporting errors and nonresponse bias-from the perspective of social and cognitive psychology and related disciplines. Topics: psychology of memory and its bearing on classical survey issues (e.g., underreporting and telescoping); models of language use and their implications for the interpretation and misinterpretation of survey questions; and studies of attitudes, attitude change, and their possible application to increasing response rates and improving the measurement of opinions. Theories and findings from the social and behavioral sciences will be explored.

Restricted to SURV majors only.

0101	Frederick Conrad	Seats (Total: 15)
	Meets August 29, 2022 - December 9, 2022	
	W 9:00am - 11:45am	LEF 1208

SURV662 **An Introduction to Small Area Estimation Methods**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Prerequisite: STAT400; and permission of instructor; and STAT401. Restriction: Permission of instructor.

There is a growing demand to produce reliable estimates of various socio-economic and health characteristics at both national and sub-national levels. However, data availability at the sub-national (small area) level from a survey is often limited by cost and thus analysts must make the best possible use of all available information. The course will begin with a history of small-area estimation and different uses of small-area statistics in both public and private sectors. This course will provide an introduction to the main concepts and issues in small estimation and describes various approaches for estimating different small area parameters. Topics include standard design-based methods, various traditional indirect methods and the state-of-the-art small-area estimation methods that use both Bayesian and empirical best prediction methods. Monte Carlo simulation results and data analysis using available statistical software will be presented.

PLS1	Partha Lahiri	Seats (Total: 15)
	Meets October 31, 2022 - November 21, 2022	
	M 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV665 **Introduction to Real World Data Management**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

Data is omnipresent in the contemporary world coming in different shapes and sized: from survey data to found data. In order to make use of such data through analysis it is necessary first to import and clean it. This is often one of the most time consuming and difficult parts of data analysis. In this course you will learn both the conceptual steps needed in preparing data for analysis as well as the practical skills to do this. The course will cover all the essential skills needed to prepare data be it survey data, administrative data or found data.

Basic knowledge of R and prior experience working with data is required for success in this course.

PLS1	Alexandru Cernat	Seats (Total: 15)
	Meets September 26, 2022 - November 21, 2022	
	M 3:00pm - 4:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV673 **Introduction to Python and SQL**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Recommended: Background knowledge in programming in Python and SQL structures.

Basics of Python and SQL for data analysis.Students will explore real publicly-available datasets, using the data analysis toolsin Python to create summaries and generate visualizations. Students will learn thebasics of database management and organization, as well as learn how to code inSQL and work with PostgreSQL databases. By the end of the class, students shouldunderstand how to read in data from CSV files or from the internet and becomfortable using either SQL or Python to aggregate, summarize, describe, andvisualize these datasets.

Contact department for information to register for this course.

SURV699 **Special Topics in Survey Methodology; Reading in Survey Methodology**

(Perm req)

Credits: 1-3

Grading Method: Regular, Audit

Credit according to time scheduled and organization of the course. Organized as a lecture series on specialized advanced topics in survey methodology.

0101	Partha Lahiri	Seats (Total: 10)
	Contact instructor or department for details.	
0301	Stanley Presser	Seats (Total: 10)
	Contact instructor or department for details.	
0401	Frauke Kreuter	Seats (Total: 2)
	Contact instructor or department for details.	

SURV706 **General Linear Models**

Credits: 2

Grading Method: Regular, Audit

Recommended: Sound understanding of Linear Regression Models, Calculus and Linear Algebra. Restriction: Must have permission of BSOS-Joint Program in Survey Methodology. Credit only granted for: SURV706 or SURV699J. Formerly: SURV699J.

The main focus of this course lies on the introduction to statistical models and estimators beyond linear regression useful to social and economic scientists. It provides an overview of generalized linear models (GLM) that encompass non-normal response distributions to model functions of the mean. GLMs thus relate the expected mean E(Y) of the dependent variable to the predictor variables via a specific link function. This link function permits the expected mean to be non-linearly related to the predictor variables. Examples for GLMs are the logistic regression, regressions for ordinal data, or regression models for count data. GLMs are generally estimated by use of maximum likelihood estimation. The course thus not only introduces GLMs but starts with an introduction to the principle of maximum likelihood estimation.

PLS1	Thomas Gautschi	Seats (Total: 15)
	Meets August 29, 2022 - October 17, 2022	
	M 12:00pm - 1:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV720 **Total Survey Error and Data Quality I**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: SURV625. Restriction: Permission of instructor. Credit only granted for: (SURV720 and SURV721) or SURV723. Formerly: SURV723.

Total error structure of sample survey data, reviewing current research findings on the magnitudes of different error sources, design features that affect their magnitudes, and interrelationships among the errors. Coverage, nonresponse, sampling, measurement, and postsurvey processing errors. For each error source reviewed, social science theories about its causes and statistical models estimating the error source are described. Empirical studies from the survey methodological literature are reviewed to illustrate the relative magnitudes of error in different designs. Emphasis on aspects of the survey design necessary to estimate different error sources. Relationships to show how attempts to control one error source may increase another source. Attempts to model total survey error will be presented.

It runs concurrently with the University of Michigan course.

0101	Sharan Sharma	Seats (Total: 20)
	Meets August 29, 2022 - December 9, 2022	
	Th 10:20am - 12:15pm	LEF 1208

SURV726 **Multiple Imputation**

Credits: 1

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Be comfortable with generalized linear models and basic probability theory through coursework or work experience; and familiarity with the statistical software R; and must have completed Surv 725 Item Nonresponse and Imputation or be familiar with the content through relevant work experience. Restriction: Permission of BSOS-Joint Program in Survey Methodology department.

This course will provide a detailed introduction to multiple imputation, a convenient strategy for dealing with (item) nonresponse in surveys. We will motivate the concept and illustrate why multiple imputation should generally be preferred over single imputation methods. The main focus of the course will be on strategies to generate (multiple) imputations and how to deal with common problems when applying the methods for large scale surveys. We will also discuss various options for assessing the quality of the imputations. All concepts will be demonstrated using software illustrations in R.

PLS1	Alexandra Breslin, Joerg Drechsler	Seats (Total: 15)
	Meets November 9, 2022 - November 30, 2022	
	W 11:00am - 12:00pm	ONLINE
	Class time/details on ELMs	ONLINE
	Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.	

SURV727 Fundamentals of Computing and Data Display

Credits: 3 Grading Method: Regular, Audit

Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department. Additional information: Students without any R knowledge are encouraged to work through one or more R web tutorials prior or during the first weeks of the course.

The first part of this course provides an introduction to web scraping and APIs for gathering data from the web and then discusses how to store and manage (big) data from diverse sources efficiently. The second part of the course demonstrates techniques for exploring and finding patterns in (non-standard) data, with a focus on data visualization. The course focuses on R as the primary computing environment, with excursus into SQL and Big Data processing tools.

It runs concurrently with the University of Michigan course.

0101	Brian Kim	Seats (Total: 20)
	M 12:30pm - 3:00pm	LEF 1208
PCA1	Brian Kim, Christoph Kern	Seats (Total: 15)
	M 12:30pm - 3:00pm	LEF 1208
	Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.	

SURV740 Fundamentals of Inference

Credits: 3

Grading Method: Regular, Audit

Prerequisite: SURV410 and SURV420; or (SURV615 and SURV616); or permission of Instructor required. Restriction: Must be in a major within the BSOS-Joint Program in Survey Methodology department; or permission of BSOS-Joint Program in Survey Methodology department.

Focuses on the fundamentals of statistical inference in the finite population setting. Overview and review fundamental ideas of making inferences about populations. Basic principles of probability sampling; focus on differences between making predictions and making inferences; explore the differences between randomized study designs and observational studies; consider model-based vs. design-based analytic approaches; review techniques designed to improve efficiency using auxiliary information; and consider non-probability sampling and related inferential techniques.

It runs concurrently with the University of Michigan course.

0101	Yan Li, James Wagner **Meets August 29, 2022 - December 9, 2022** F 1:00pm - 4:00pm	Seats (Total: 20) LEF 1208
PCA1	Yan Li, James Wagner F 1:00pm - 4:00pm *Must be in Applied Political Analytics (MS). All other graduate students must request permission. Contact oes@umd.edu.*	Seats (Total: 20) LEF 1208

SURV753 **Machine Learning II**

(Perm req)

Credits: 2

Grading Method: Regular, Audit

Prerequisite: SURV751; or comparable knowledge or experience. Recommended: Familiarity with the statistical programming language R.

Social scientists and survey researchers are confronted with an increasing number of new data sources such as apps and sensors that often result in (para)data structures that are difficult to handle with traditional modeling methods. At the same time, advances in the field of machine learning (ML) have created an array of flexible methods and tools that can be used to tackle a variety of modeling problems. Against this background, this course discusses advanced ML concepts such as cross validation, class imbalance, Boosting and Stacking as well as key approaches for facilitating model tuning and performing feature selection. In this course we also introduce additional machine learning methods including Support Vector Machines, Extra-Trees and LASSO among others. The course aims to illustrate these concepts, methods and approaches from a social science perspective. Furthermore, the course covers techniques for extracting patterns from unstructured data as well as interpreting and presenting results from machine learning algorithms. Code examples will be provided using the statistical programming language R.

PLS1	Christoph Kern, Trent Buskirk **Meets September 23, 2022 - November 11, 2022** F 11:00am - 12:00pm Class time/details on ELMs	Seats (Total: 15) ONLINE ONLINE

Students must have access to a standalone web camera and a headset to participate in the weekly online meetings.

SURV829 **Doctoral Research Seminar in Survey Methodology**

Credits: 3-6 Grading Method: Sat-Fail

An advanced research seminar for students preparing to do research or take doctoral comprehensive examinations.

0101	Trivellore Raghunathan, Katharine Abraham **Meets August 29, 2022 - December 9, 2022** W 2:00pm - 4:30pm	Seats (Total: 10) LEF 1218

SURV898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

SURV899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TDPS Theatre, Dance and Performance Studies Fall 2022

TDPS201 **Introduction to Technical Production**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in a major within the ARHU-Dance department; or must be in a major within the ARHU-Theatre department. Credit only granted for: DANC210 and THET114 or TDPS201. Formerly: DANC210 and THET114.

Students are provided with an overview of topics related to the technical production of theatre and dance including: scenic, prop and costume construction, lighting, sound and video execution and management structures.

Students must pay a $25.00 lab fee.

5501	Michael Driggers	Seats (Total: 25)	
	MW 4:00pm - 4:50pm	PAC 1809	
	F 3:30pm - 5:30pm	PAC 1702	Lab

TDPS258C **Special Topics in Introductory Performing Arts; Cultural Institutions in the United States**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at the introductory level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Cross-listed with ARHU240. Credit granted for TDPS258C or ARHU240.

0101	Amber Daniels	Seats (Total: 25)
	TuTh 9:30am - 10:45am	ONLINE

TDPS258W **Special Topics in Introductory Performing Arts; Storytelling in Israeli Animation and Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at the introductory level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

Cross-listed with ISRL249B, JWST219F, ENGL289F, and CINE298E. Credit only granted for ISRL249B, TDPS258W, JWST219F, ENGL289F, or CINE298E. How short can a story be and still stand as a complete and meaningful creation? In animation, where every second consists of 25 handmade frames, the idea of short is brought to its extreme. Students will explore the structures of short stories and short animation films, with particular attention to Jewish and Israeli examples. Students will observe the basic elements that turn a short occurrence into a story and will practice live storytelling to experiment with different approaches to the narrator's role and the tension between text and image. Special emphasis will be given to the use of narration in animation films.

0101	Yael Inbar	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	PAC 1815

TDPS362 **Alexander Technique**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET116, THET223, and TDPS201; or (DANC218 and DANC219). And permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399J, THET362 or TDPS362. Formerly: THET399J and THET362.

Based on the F.M. Alexander Technique, students will learn to recognize habit patterns that interfere with how they function and express themselves so that they can make conscious choices as a performing artist.

5501	Leslie Felbain, Adriane Fang	Seats (Total: 18)	
	TuTh 9:00am - 10:50am	PAC 3736	Lab

TDPS458F **Special Topics in Advanced Performing Arts; Aesthetics of Collaboration in Performance: Theory & Practice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim	Seats (Total: 15)
	MW 2:30pm - 3:45pm	PAC 1809

TDPS458M **Special Topics in Advanced Performing Arts; Meet me in the Multiverse: Performance and New Media**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Designed for performing arts students. Offers instruction at an advanced level in various aspects of performance such as Voice for the Performing Arts, Movement for the Performing Arts, Acting for the Performing Arts, Partner Dance and a myriad of specific aspects within these genres.

This course combines media analysis with close and critical reading to explore the changing critical landscape that surrounds the interstices of performance and media studies and the diverse histories that have converged there. Students will get the opportunity to guide discussions and curate media. You will take on the role of the primary investigator of diverse critical perspectives presented weekly. These practices may come in the form of readings or pieces created by media artists: on social and/or aesthetic theory, on media practices and technologies, on performance, on contemporary art discourse, on social media activism, or on media history/archaeology. Student suggestions are welcomed and encouraged. This class is a survey course with a major focus on media studies and performance.

0101	Van Tran Nguyen	Seats (Total: 15)
	MW 1:00pm - 2:15pm	PAC 1815

TDPS469 **Advanced Practicum in Stage Management**

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A graded course in stage management for theatre and/or dance productions. A hands-on laboratory experience.

0101	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 8)

TDPS479 Production Practicum

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

A graded course in a specified practical aspect of mounting a theatre or dance production. It is a hands-on, purely laboratory experience.

1001	Andrew Cissna Contact instructor or department for details.	Seats (Total: 25)
1002	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1003	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1004	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1005	Andrew Cissna Contact instructor or department for details.	Seats (Total: 60)
1006	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
1007	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2001	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2002	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2003	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

2004	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2005	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)
2006	Bobby Hunter, Andrew Cissna Contact instructor or department for details.	Seats (Total: 15)

THET Theatre Fall 2022

THET110 **Introduction to the Theatre**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | CORE: HA | General Education: DSHU

In the age of pop music and blockbuster films, of memes and viral videos, we often forget that theatre was one of the original forms of popular entertainment. We will focus on theatre practitioners including actors, directors, designers and backstage personnel to understand how theatre is produced. We will also consider popular entertainment in Europe and America, with a particular focus on musical theatre and Broadway to explore how theatre communicates, resonates, and remains relevant to all audiences.

0101	Christen Mandracchia MWF 11:00am - 11:50am	Seats (Total: 120) ONLINE
0201	Lauren Farnell, Jordan Ealey MWF 12:00pm - 12:50pm	Seats (Total: 120) BPS 1250
FC01	Lisa Nathans TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 24) PAC 1809

THET116 **Fundamentals of Theatrical Design**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

Students must pay a $25.00 lab fee.

5501	Rebecca Janney, Christina Smith TuTh 3:00pm - 4:50pm	Seats (Total: 20) PAC 2733

THET120 **Introduction to Acting**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must not be in Theatre program.

Through scene study, exercises, and improvisation, an appreciation is developed for the working habits of actors, which will aid them in rehearsal as well as performance.

Students must pay a $25 lab fee.

5501	Fatima Quander MW 1:00pm - 2:50pm	Seats (Total: 15) PAC 3730	

THET222 **Foundations of Acting and Performance**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Students will become familiar with the tools and process of acting through the discipline of acting exercises, analyzing character and performing. Students will research various theatre artists that have contributed to the acting process. Through monologue and scene work students will learn listening skills, communicative, collaborative and embodiment skills and will learn how to use the self in the imaginative process and research. And, most importantly, students will learn creative process through practice.

Students must pay a $25.00 lab fee.

5501	Fatima Quander TuTh 2:00pm - 3:50pm	Seats (Total: 12) PAC 3732	Lab
5502	Scot Reese TuTh 10:00am - 11:50am	Seats (Total: 12) PAC 3730	Lab

THET223 **Text and Context in Western Theatre**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introduction to the analysis and critique of the play script. Students will have the opportunity to read, analyze, and interpret western dramatic literature from a range of periods and styles. Texts are analyzed from a variety of theatrical analytical perspectives, with an eye towards choices theatre artists must make in the creation of a theatrical production.

0101	Alexander Miller TuTh 12:30pm - 1:45pm	Seats (Total: 20) PAC 1809	

THET228A **Special Topics in Introduction Theatre and Performance; Improvisational Acting**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

This course is offered as part of the TDPS Artist-in-Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Students must pay a $25 lab fee.

5501	Fatima Quander	Seats (Total: 18)
	MW 10:00am - 11:50am	PAC 3732

THET269B **Special Topics in Study Abroad II; The Meaning of Style**

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET269T **Special Topics in Study Abroad II; 20th Century and Contemporary Spanish Theatre**

Credits: 1-6

Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET274 **Introduction to Stage Management**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET114 or TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Familiarization with the techniques and skills required of a Stage Manager in a theatrical production, including organization, production meetings, rehearsals, tech and running a show. The outcome at the conclusion of the course is the ability to function as an Assistant Stage Manager in a supervised situation.

Students must pay a $25.00 lab fee.

5501	Jenn Schwartz	Seats (Total: 12)
	TuTh 11:00am - 12:15pm	PAC 1815

THET284 **Stage Costume Construction I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

Study and practical experience in garment construction and related costume crafts as used in theatre costume design. Flat pattern development, corset construction, theatrical sewing techniques and organization of the costume construction process.

Students must pay a $25.00 lab fee.

5501	Susan Chiang MW 9:00am - 10:50am	Seats (Total: 12) PAC 3749	Lab

THET285 **The Art of Communication and Presentation**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: FSOC

Credit only granted for: COMM107, COMM200, INAG110, JOUR130, or THET285.

An introduction to the fundamental practice and theory of public speaking and oral communication using theatrical techniques of both performance and the craft of storytelling.

0101	Ronya Anderson MW 10:00am - 11:50am	Seats (Total: 20) PAC 3736
0102	Susan Miller, Robert Smith TuTh 3:30pm - 5:00pm	Seats (Total: 20) PAC 3736
0103	Lindsey Barr MW 12:00pm - 1:50pm	Seats (Total: 20) PAC 3732
FC01	Drew Barker TuTh 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1117
FC02	Jennifer Ring MW 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1146
FC04	Drew Barker TuTh 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1117
FC06	Jennifer Ring MW 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) PLS 1146

THET286 **Experiential Learning I**

(Perm req) Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201. And permission of ARHU-School of Theatre, Dance & Performance Studies department.

Introductory internship in theatre. Constructed to help students in their sophomore year gain practical experience in a supportive work environment in the theatre. Student must research and propose internship to a Faculty Advisor and Internship Venue.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0210	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)

1701	Helen Huang Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
2003	Instructor: TBA Contact instructor or department for details. Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET293 **Black Theatre and Performance I**

Credits: 3 | Grading Method: Regular, Pass-Fail | CORE: HA, D | General Education: DSHU, DSSP, DVUP

Thematic and historical survey of African-American drama from the late nineteenth century to the 1960s. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

0101	Kristopher Pourzal TuTh 12:30pm - 1:45pm	Seats (Total: 20) PAC 1815

THET310 **Voice for the Actor I**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116, THET222, THET223, and TDPS201; and must Interview; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

Students must pay a $25.00 lab fee.

5501	Lisa Nathans	Seats (Total: 12)	
	TuTh 2:00pm - 3:50pm	PAC 2740	Lab

THET324 **Character Development**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in THET310 and THET362; or permission of Instructor. And must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher.

European-based physical approach to acting. Primary focus on character development, may include creating original characters and learning how to bring to life an already scripted character. Techniques to explore the soul and psychology of characters and their physical qualities, voice, rhythm and movement.

Students must pay a $25 lab fee.

5501	Susan Miller, Robert Smith	Seats (Total: 12)
	TuTh 1:30pm - 3:20pm	PAC 3736

THET325 **Actor's Process I**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have completed or be concurrently enrolled in THET310; or permission of Instructor. And must audition; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

Focus on use of self in creating character. Tools employed include decision-making and use of imagery, personalization, objectives, adjectives, and verbs.

Students must pay a $25.00 lab fee.

5501	KenYatta Rogers	Seats (Total: 14)
	MW 1:00pm - 2:50pm	PAC 2740

THET326 **Viewpoints**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, THET116, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET328V or THET326. Formerly: THET328V.

Viewpoints is a movement-based performance course for students who already have a foundation in the basics of acting and/or dance. The Viewpoints are a set of tools and vocabulary; using 9 categories of time and space, students will fully explore the possibilities of using their physical instruments (the body) to their fullest on stage.

Students must pay a $25 lab fee.

5501	Jennifer Newsham	Seats (Total: 14)	
	MW 1:00pm - 2:50pm	PAC 3736	

THET330 **Play Directing I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, and THET116. And THET114; or TDPS201. And permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Junior standing or higher.

A lecture-laboratory course dealing with the techniques of coordinating, designing and guiding the production of a script through to performance. Study and practice in stage composition, movement, pacing, script and character analysis, and rehearsal routines. Emphasis on methods of communicating a script to an audience.

5501	Scot Reese	Seats (Total: 8)	
	MW 10:00am - 11:50am	PAC 2740	Lab

THET340 **Playwriting I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, THET116, and TDPS201. Restriction: Permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET340 or THET399P. Formerly: THET399P.

Will introduce students to the art of playwriting through exploratory writing exercises, the reading of successful plays, the development of new short scripts, how to make theatrical choices, and how to use the six elements of storytelling.

5501	Jennifer Newsham	Seats (Total: 12)	
	MW 10:00am - 11:50am	PAC 1809	Lab

THET351 **Musical Theatre I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: THET351 or THET328M. Formerly: THET328M.

An introduction for students interested in developing their skills with musical theatre, specifically the work of the actor interpreting songs and text in musicals. With a primary focus on American Musical Theatre repertoire, students will prepare and present various solo, duet, and group numbers.

5501	Lisa Nathans	Seats (Total: 12)
	Tu 9:00am - 11:50am	PAC 2740

THET369L **Special Topics in Study Abroad III; 20th Century and Contemporary Latin American Theatre**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

THET371 **Scenic Design I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, and THET116; and (THET114; or TDPS201). Or permission of ARHU-School of Theatre, Dance & Performance Studies department.

A study of design theory and style. Methods and techniques of coordination of all elements of scenic design for theatre.

5501	Misha Kachman	Seats (Total: 10)	
	MW 3:00pm - 4:50pm	PAC 2733	Lab

THET380 **Sound Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET116. And THET114; or TDPS201; or permission of ARHU-School of Theatre, Dance & Performance Studies department. Restriction: Sophomore standing or higher.

Theatre Sound Design is a first course in designing sound for stage productions.

Students must pa a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)
	TuTh 10:00am - 11:50am	PAC 2727

THET385 **Media Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET222, THET223, THET116, and TDPS201; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Credit only granted for: THET399D or THET385. Formerly: THET399D.

Focuses on learning the grammar and conceptual thinking behind multimedia design for live performance. Students will learn how our new multimedia tools can enhance the sense of liveness as well as explore the different ways in which technology can be implemented into preproduction thinking, rehearsal experimenting, and ultimately, effective use in performance.

Students must pay a $25 lab fee.

5501	Jared Mezzocchi, Kate Ladenheim MW 1:00pm - 2:50pm	Seats (Total: 8) PAC 2727	Lab

THET386 **Experiential Learning**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Restriction: Junior standing or higher; and permission of ARHU-School of Theatre, Dance & Performance Studies department.

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2003	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2009	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET390 **History of Theatre I**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit , D

Prerequisite: Permission of ARHU-School of Theatre, Dance & Performance Studies department.

The history of Western theatre from its origins in classical antiquity through the mid-seventeenth century with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Includes explorations of interrelationships between Western theatre and the theatre of other cultures.

0101	Franklin Hildy MW 11:30am - 12:45pm	Seats (Total: 20) PAC 1815

THET399 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

0102	Samuel Crawford Contact instructor or department for details.	Seats (Total: 5)
0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)
0301	Susan O'Neill Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	KenYatta Rogers Contact instructor or department for details.	Seats (Total: 5)
0601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain, Adriane Fang Contact instructor or department for details.	Seats (Total: 5)
0901	Van Tran Nguyen Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Amith Chandrashaker Contact instructor or department for details.	Seats (Total: 5)
1401	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1501	Lisa Nathans Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)

1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2003	Jenn Schwartz Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)
2009	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)

THET399H **Independent Study; London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399W **Independent Study; The London Stage**

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET399X **Independent Study; The London Stage**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers, scenic; lighting, or costume designs; or a stage production.

Contact department for information to register for this course.

THET408M **Seminar: Theory and Performance Studies; Modernism's Theatres/Theatre's Modernisms**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Studies in theatre theory and performance studies from classical antiquity to the present.

This seminar will thus call attention to the political theatre of the early part of the twentieth century and given the dangerous, growing prominence of populist right-wing political ideologies today, we will consider the continued relevance of modernism's theatre in the early part of the twenty-first century.

0101	James Harding	Seats (Total: 15)
	TuTh 11:00am - 12:15pm	PAC 1809

THET428A **Special Topics in Advanced Theatre and Performance; Advanced Sound Design**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Students must have completed THET380; or permission of instructor. Students must pay a $25 lab fee.

5501	Samuel Crawford	Seats (Total: 10)
	TuTh 1:30pm - 2:45pm	PAC 2727

THET428L **Special Topics in Advanced Theatre and Performance; Advanced Techniques Lighting Design: Programming**

(Perm req)

Credits: 3 Grading Method: Regular

This course is offered as part of the School of Theatre, Dance, and Performance Studies' Artist in Residence program. Topics covered may include: Intercultural Theatre; Performance Art; Puppetry; Solo Performance; or Theatrical Design.

Required pre-requisite THET377. Students must pay a $25 lab fee.

5501	Heather Reynolds	Seats (Total: 8)
	TuTh 3:00pm - 4:50pm	PAC 3731

THET429 **Actor's Studio**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail

Participation in dramatic roles executed under faculty supervision in the department's productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

Contact department for information to register for this course.

THET475 **History of Art, Architecture, and Decor for the Theatre**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET114 or TDPS201; and (THET116, THET222, and THET223); and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET670. Credit only granted for: THET475 or THET670.

Study of Western art, architecture, and decor and their practical application to theatrical production.

Students must pay a $25 lab fee.

5501	Daniel Conway	Seats (Total: 10)	
	TuTh 1:30pm - 2:45pm	PAC 2733	

THET477 **Design Studio in Lighting**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET377; and permission of ARHU-School of Theatre, Dance & Performance Studies department. Jointly offered with THET659. Credit only granted for: THET477 or THET659.

Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

Students must pay a $25 lab fee.

5501	Amith Chandrashaker	Seats (Total: 3)	
	MW 3:00pm - 4:50pm	PAC 3731	Lab

THET481 **Theatre Graphics II: Computer Assisted Design**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: THET114 or TDPS201; and THET116; and permission of ARHU-Theatre department. Restriction: Sophomore standing or higher.

Study and practical application of computer generated graphical design for use in theatrical production.

Students must pay a $25 course fee.

5501	Andrew Cissna	Seats (Total: 3)	
	MW 10:00am - 11:50am	PAC 2727	Lab

THET499 **Independent Study**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Contact department for information to register for this course.

THET499B **Independent Study; Figure Drawing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

Students must pay a $25 lab fee

5501	Susan O'Neill	Seats (Total: 10)
	F 9:00am - 11:50am	PAC 3736

THET600 **Introduction to Graduate Research Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be a graduate student in a Theatre program. Also offered as: THET700. Credit only granted for: THET600 or THET700. Additional information: Only students in the doctoral program may register for THET700.

Basic skills in theatre research.

0101	Franklin Hildy	Seats (Total: 12)
	MW 2:30pm - 3:45pm	PAC 1815

THET606 **Teaching Theatre**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Strategies and materials for teaching a typical introductory course in theatre, with emphasis on specific problems of classroom instruction (e.g., creating a supportive climate, promoting active learning by students, constructing appropriate tests, adapting methods to content, and resolving discipline problems).

0101	Crystal Davis	Seats (Total: 18)
	Tu 3:00pm - 4:15pm	PAC 2804

THET608F **Seminar: Theory and Performance Studies; Aesthetics of Collaboration in Performance: Theory & Practice**

Credits: 3

Grading Method: Regular, Audit

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

This class offers practical methods for the creation and analysis of collaborative performance projects. Taking for granted that all performance works engage collaboration, this class is organized around themes of media, materiality, site-specificity, and working within and against systems. These themes are the organizing principles for student projects, as well as exemplary works of theory and performance. Finally, this class, being about collaboration, looks at strategies for working together, and carries with it an ethic of kindness, constructive critique, and mutual support.

0101	Kate Ladenheim	Seats (Total: 15)	
	MW 2:30pm - 3:45pm	PAC 1809	

THET608O **Seminar: Theory and Performance Studies; Techno Orietnalism: Race, Technology, and Performance**

Credits: 3 Grading Method: Regular, Audit

A repeatable seminar on special topics in theory of the Theatre and Performance Studies.

This course will interrogate the history of Orientalism and its prevalence in western cultural production. We will begin with a close reading of Edward Said's Orientalism (1978) then shift to the manifestation of orientalism in the computer age (Techno Orientalism). This class will look deeply at the representations of race and technology by examining plays and films throughout the semester. Students will get the opportunity to guide discussions and curate media. You will take on the role of the primary investigator of diverse critical perspectives presented weekly.

0101	Van Tran Nguyen	Seats (Total: 10)	
	Tu 3:30pm - 6:00pm	PAC 1815	

THET639 **Advanced Design Studio in Scenery**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

5501	Daniel Conway	Seats (Total: 10)	
	TuTh 9:00am - 10:50am	PAC 2733	Lab

THET649 **Advanced Design Studio in Costume**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A series of carefully and individually structured assignments and projects that allows students to progress in their design training.

Students must pay a $25 course fee. Class is for First, Second, and Third Year MFA students.

5501	Helen Huang	Seats (Total: 6)	
	Tu 10:00am - 12:30pm	PAC 2755	

THET659 **Advanced Design Studio in Lighting**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25 course fee.

5501	Amith Chandrashaker	Seats (Total: 6)	
	MW 3:00pm - 4:50pm	PAC 3731	Lab
	For First MFA Lighting and other TDPS MFA students.		
5502	Amith Chandrashaker	Seats (Total: 10)	
	M 10:00am - 12:50pm	PAC 2755	Lab
	Class is for second and third year lighting design students.		

THET669 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit, Sat-Fail

Contact department for information to register for this course.

THET669F **Independent Study; Figure Drawing**

Credits: 3 Grading Method: Regular, Audit

5501	Susan O'Neill	Seats (Total: 10)	
	F 9:00am - 11:50am	PAC 3736	

THET669M **Independent Study; Advanced Media: Public Projections**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 lab fee.

5501	Jared Mezzocchi	Seats (Total: 8)	
	F 9:00am - 12:00pm	PAC 2727	Lab

THET669R **Independent Study; Advanced Rendering**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 lab fee.

5501	Helen Huang	Seats (Total: 8)	
	Th 1:30pm - 4:20pm	PAC 2755	

THET669T **Independent Study; Theatre Graphics II: Computer Assisted Design**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Students must pay a $25 course fee.

5501	Andrew Cissna	Seats (Total: 5)	
	MW 10:00am - 11:50am	PAC 2727	Lab

THET670 **Period Style for the Theatre: Fashion and Decor**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Recommended: THET600. Jointly offered with: THET475. Credit only granted for: THET475 or THET670.

A study of environmental decor, theatrical architecture, historic ornament and fashion through the ages and their practical application for theatrical production.

5501	Daniel Conway	Seats (Total: 10)
	TuTh 1:30pm - 2:45pm	PAC 2733

THET679 **Advanced Design Studio in Multimedia and Projection Design**

(Perm req)

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

A repeatable course that allows students to progress in their design training through a series of carefully and individually structured assignments and projects.

Students must pay a $25 lab fee.

5501	Jared Mezzocchi	Seats (Total: 8)
	M 3:00pm - 6:00pm	PAC 2727

THET698G **Seminar: Theatre History; History of Theatre to 1700**

Credits: 3 Grading Method: Regular, Audit

Studies in theatre history from classical antiquity to the present.

0101	Franklin Hildy	Seats (Total: 10)
	W 4:00pm - 6:30pm	PAC 1815

THET700 **Introduction to Graduate Research Methods**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Restriction: Must be a graduate student in a Theatre program. Also offered as: THET600. Credit only granted for: THET600 or THET700. Additional information: Only students in the doctoral program may register for THET700.

Basic skills in theatre research.

0101	Franklin Hildy MW 2:30pm - 3:45pm	Seats (Total: 12) PAC 1815

THET713 **Performance Studies**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: THET700.

Introduces doctoral students to theoretical and methodological issues in performance studies. We will focus on 3 primary areas of research, analyzing representational strategies of adaptations, ethnography, and cultural analysis of theatrical performance.

0101	James Harding Th 4:30pm - 7:00pm	Seats (Total: 12) PAC 1815

THET788 **Master's Tutorial**

(Perm req)

Credits: 1-6

Grading Method: Regular, Audit

Collaboration with a faculty member on joint creative and artistic projects.

0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	James Harding Contact instructor or department for details.	Seats (Total: 5)

0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Amith Chandrashaker Contact instructor or department for details.	Seats (Total: 5)
1501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 8)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 10)

THET789 **Master's Practicum**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Participation in creative and artistic activities with professional level theatrical organizations.

0201	Franklin Hildy Contact instructor or department for details.	Seats (Total: 5)

0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0401	Scot Reese Contact instructor or department for details.	Seats (Total: 5)
0501	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
0601	James Harding Contact instructor or department for details.	Seats (Total: 5)
0701	Jennifer Newsham Contact instructor or department for details.	Seats (Total: 5)
0801	Leslie Felbain Contact instructor or department for details.	Seats (Total: 5)
0901	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
1101	Misha Kachman Contact instructor or department for details.	Seats (Total: 5)
1301	Amith Chandrashaker Contact instructor or department for details.	Seats (Total: 5)
1601	Daniel Conway Contact instructor or department for details.	Seats (Total: 5)
1701	Helen Huang Contact instructor or department for details.	Seats (Total: 5)
1801	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2001	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2005	Instructor: TBA Contact instructor or department for details.	Seats (Total: 5)
2007	Jared Mezzocchi Contact instructor or department for details.	Seats (Total: 5)

THET799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

THET888 **Doctoral Practicum in Theatre**

(Perm req)

Credits: 1-6 Grading Method: Regular

Critical analysis of a phase of a professional field of theatre. Analysis of professional activity through personal observation. Evaluation of the purpose, process, effectiveness, and efficiency of professional activity. Recommendations for training and further research.

Contact department for information to register for this course.

THET889 **Doctoral Tutorial in Theatre**

(Perm req)

Credits: 1-6 Grading Method: Regular

Individual research in theatre.

Contact department for information to register for this course.

THET898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-6 Grading Method: Regular, Sat-Fail

Contact department for information to register for this course.

THET899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-10 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL Teaching and Learning, Policy and Leadership Fall 2022

TLPL101 **Inquiry Approach to Teaching STEM (Step 1)**

Credits: 1 Grading Method: Regular

Additional information: Students must allow for a three-hour window between 7:45 AM and 3:15 PM in their schedule for field experiences in a local school 3-4 times during the semester. A background check is required and will be facilitated by the Terrapin Teacher program coordinator.

Explore STEM teaching and learning and classroom complexity, and develop teaching skills through discussion-based, collaborative class sessions, and experiences in local schools. To explore/understand the fundamentals of inquiry teaching, students will observe, plan and teach student-centered lessons.

0101	Milen Matthews M 3:00pm - 4:20pm	Seats (Total: 24) PHY 1120
0301	Aaron Kyei-Asare Th 12:30pm - 1:50pm	Seats (Total: 24) PHY 1120

0401	Jennifer Mesiner Th 3:30pm - 4:50pm	Seats (Total: 24) PHY 1120

TLPL102 **Inquiry Teaching of STEM in Middle School**

Credits: 2 Grading Method: Regular General Education: DSSP

Prerequisite: Must have completed TLPL101. Additional information: Attendance at each class session will be vital to student success in the course. To complete the observations and lessons, students must allow a three hour block of time during the local middle school operational hours from 7:45 am to 3:15 pm. A background check is required.

Second course in the Terrapin Teachers teacher preparation sequence. Students gain field experience and continue exploring teaching as a career by conducting teacher observations, and planning and implementing lessons in local, high-need middle school classrooms. Students work closely with UM master teachers to build upon the inquiry-based teaching practices developed in TLPL 101. Students work with mathematics and science curricula while attending to state and district standards, in order to develop and enact lessons that are responsive to students' reasoning in math and science.

0101	Sarah Henson-Darko W 4:00pm - 5:50pm	Seats (Total: 24) PHY 1120
0201	Anita Sanyal Th 4:00pm - 5:50pm	Seats (Total: 24) PHY 1108

TLPL206 **Forbidden Books: Censorship of Children's and Young Adult Literature**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, SCIS

Credit only granted for: TLPL288W or TLPL206. Formerly: TLPL288W.

Critically examines the history of censorship from Plato to Fake News with a focus on contemporary censorship analyzed through historical, political, ethical, moral, philosophical, and socio-cultural perspectives. The course considers the evolving definition of censorship, the common elements found in all forms of censorship, the rationalizations and arguments for censorship, and the consequences and unintended results of censorship.

0101	Wayne Slater TuTh 12:30pm - 1:45pm	Seats (Total: 60) ASY 2309

TLPL250 **Historical and Philosophical Perspectives on Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Credit only granted for: EDPS210 or TLPL250. Formerly: EDPS210.

An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.

0101	Campbell Scribner TuTh 12:30pm - 1:45pm	Seats (Total: 30) EDU 2119
0201	Nandi Carson MW 10:00am - 11:15am	Seats (Total: 30) HBK 0103
0301	Lisa Eaker TuTh 11:00am - 12:15pm	Seats (Total: 30) CSI 1122
0401	Kavitha Kasargod-Staub MW 1:00pm - 2:15pm	Seats (Total: 30) TWS 1320
0501	Lisa Eaker TuTh 11:00am - 12:15pm	Seats (Total: 20) CSI 1122

TLPL251 **Community, Learners, and Classroom Climate**

Credits: 3 Grading Method: Regular

Credit only granted for: EDCI280 or TLPL251. Formerly: EDCI280.

An exploration of teaching in public schools, grades 1-12: student diversity, societal changes, and the expectations of teachers and public schools. Three hour per week field component.

Two-hour seminar each week on campus plus a four-hour lab each week which includes three hours in a local public school classroom and commute time to and from campus. Most schools are within a 20-minute commute with more travel time needed if public transportation is required. Allow for travel time between on-campus coursework and the off-campus public school experience. All schools require a Prince Georges County Public School security process that includes fingerprinting and a background check at an additional cost, prior to the start of the experience.

0101	Lisa Bote W 4:00pm - 5:50pm Tu 8:00am - 12:00pm	Seats (Total: 15) TYD 0102 Location: TBA	 Lab
0102	Lisa Bote W 4:00pm - 5:50pm Tu 12:00pm - 4:00pm	Seats (Total: 5) TYD 0102 Location: TBA	 Lab

0103	Lisa Bote W 4:00pm - 5:50pm W 8:00am - 12:00pm	Seats (Total: 15) TYD 0102 Location: TBA	Lab

TLPL288D **Special Problems in Education; Developmental Heuristics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

0101	Sharon Vanwright Contact instructor or department for details.	Seats (Total: 115)

TLPL288R **Critical Race Counter-storytelling**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP, DVCC, SCIS

Repeatable to 3 credits. Additional information: This is a storytelling writing/composing workshop. Students will engage regularly in small writing groups.

This is a storytelling course where students explore what it means to compose counternarratives through critical race lenses. How might we compose stories that challenge dominant narratives about people and communities who are often subjected to one-sided, deficit portrayals? How do we interrogate the white gaze and the white imagination as represented in popular media, literary works, and academic writing, particularly about communities of color?

0101	Rossina Liu MW 2:00pm - 3:15pm	Seats (Total: 60) ESJ 2212

TLPL298 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL305B **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)
0201	Instructor: TBA Contact instructor or department for details.	Seats (Total: 28)

0301	Instructor: TBA Contact instructor or department for details.	Seats (Total: 30)

TLPL305M **Curriculum and Instruction Cluster**

(Perm req)

Credits: 0 Grading Method:

0101	Instructor: TBA Contact instructor or department for details.	Seats (Total: 20)

TLPL312 **Curriculum and Instruction in Elementary Education: Mathematics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL361. Corequisite: EDCI362, EDCI342, TLPL321, and TLPL362. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI352 or TLPL312. Formerly: EDCI352.

Materials and procedures to help children sense arithmetical meanings and relationships. Development of an understanding of the number system and arithmetical processes. Includes laboratory/field experiences.

0101	William Viviani M 12:00pm - 2:45pm Contact instructor or department for details.	Seats (Total: 0) EDU 2121
0201	Janet Walkoe Th 8:30am - 11:15am Contact instructor or department for details.	Seats (Total: 0) TWS 1320
0301	Angela Stoltz Tu 12:30pm - 3:15pm Contact instructor or department for details.	Seats (Total: 0) EDU 2121

TLPL321 **Curriculum and Instruction in Elementary Education: Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL361. Corequisite: TLPL312, EDCI362, EDCI342, and TLPL362. Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI372 or TLPL321. Formerly: EDCI372.

Objectives, methods, materials and activities for teaching science in the elementary school; emphasis on teaching strategies which help children learn the processes and concepts of science. Includes laboratory/field experiences.

0101	Jennifer Mesiner M 8:30am - 11:15am Contact instructor or department for details.	Seats (Total: 0) EDU 2121
0201	Amy Green Th 12:00pm - 2:45pm Contact instructor or department for details.	Seats (Total: 0) EDU 2121
0301	Amy Green Tu 9:00am - 11:45am Contact instructor or department for details.	Seats (Total: 0) EDU 2121

TLPL340 **Introduction to Children's Literature and Critical Literacy**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be in Elementary Education program; or must be a Pre-Education Major. Credit only granted for: EDCI443 or TLPL340. Formerly: EDCI443.

Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

0101	Margaret Peterson MW 1:00pm - 2:15pm	Seats (Total: 22) SQH 1123

TLPL341 **Assessing Language and Literacy Development in Elementary Classrooms**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: TLPL479, EDHD411, and EDSP401. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL341 or TLPL488R. Formerly: TLPL488R.

An exploration of the social and cognitive processes involved in reading and writing, the developmental nature of those processes, the foundational concepts associated with effective literacy assessment, a variety of formative and summative literacy assessments, and the nature of individual differences in reading and writing.

0101	Shannon Kane M 9:00am - 11:45am	Seats (Total: 24) EDU 3233
0201	Shannon Kane Tu 9:00am - 11:45am	Seats (Total: 28) TWS 1320

0301	Olivia Saracho Th 9:00am - 11:45am	Seats (Total: 28) EDU 2121

TLPL343 **Promoting Skilled and Motivated Readers in Diverse Elementary Classrooms (Part 2)**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Corequisite: TLPL312, TLPL321, TLPL446, and TLPL489. Restriction: Must be in the Elementary Education program; and permission of EDUC-Teaching and Learning, Policy and Leadership. Credit only granted for: TLPL343 or TLPL488F. Formerly: TLPL488F.

Application of the materials, curriculum, teaching and learning practices and assessment methods associated with classroom reading programs designed to promote skilled and motivated readers in diverse elementary classrooms. Teacher candidates will learn to assess and scaffold students' self-regulated literacy learning in line with students' individual needs and Maryland College and Career Ready Standards.

0101	Rose Cherussery Tu 12:00pm - 2:45pm	Seats (Total: 0) EDU 3233
0201	Shannon Kane W 8:30am - 11:15am	Seats (Total: 0) EDU 1315
0301	Ayanna Baccus M 8:30am - 11:15am	Seats (Total: 0) EDU 3315

TLPL360 **Foundations of Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Credit only granted for: EDPS301 or TLPL360. Formerly: EDPS301.

Social context of education and conflicts over philosophies, values, an goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

0201	Antoinette Waller MW 11:00am - 12:15pm	Seats (Total: 30) SQH 1105
0301	Doug McNamara TuTh 2:00pm - 3:15pm	Seats (Total: 30) EDU 1107

TLPL401 **Student-Centered Curriculum and Instruction**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP, DVCC

Prerequisite: Permission of instructor; and TLPL102; and must have completed or be concurrently enrolled in TLPL488M. Credit only granted for: TLPL488P or TLPL401. Formerly: TLPL488P. Additional information: Field experience for this course will require students to be available for a 2-4 hour block of time at various points throughout the semester to complete observations and teach lessons between 8:00 a.m. and 3:30 p.m. A background check is required and will be facilitated through the Terrapin Teacher program coordinator.

A focus on using student-centered teaching and learning approaches in high school STEM classrooms. Students will develop and implement a multi-day series of lessons, building upon the foundations of inquiry-based practices developed in prior courses. Students will also consider the implications of cultural awareness on teaching practices broadly, as well as in the specific contexts of their fieldwork.

0101	Sarah Henson-Darko TuTh 2:00pm - 3:20pm	Seats (Total: 24) PHY 1108
0201	Dana Grosser-Clarkson TuTh 2:00pm - 3:20pm	Seats (Total: 24) PHY 1120

TLPL403 **Teaching and Learning High School Mathematics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: Must have 2 semesters of calculus; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Corequisite: EDCI355. Restriction: Must be in Secondary Educ: Mathematics program; and minimum cumulative GPA of 2.75; Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI455 or TLPL403. Formerly: EDCI455.

Methods of teaching and assessing the high school mathematics curriculum; aligning tasks and activities to curriculum standards; lesson planning; and selection and use of technology. The course also focuses on managing large group dynamics in the high school mathematics classroom.

0101	Dana Grosser-Clarkson M 5:00pm - 8:00pm	Seats (Total: 24) PHY 1108

TLPL413 **Teaching and Learning Middle School Mathematics**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI457 or TLPL413. Formerly: EDCI457.

Methods of teaching and assessing the middle school mathematics curriculum. Understanding the conceptual difficulties students have in moving from whole numbers to rational numbers, additive thinking to multiplicative thinking, and arithmetic to algebra. Lesson planning and selection of technology and other materials are applied in the context of supervised tutoring of students having difficulty in middle school mathematics. Lab and field experience required. Supervised tutoring takes place on site at a local middle school therefore TLPL413 students will be expected to travel to a local middle school for 8-10 of the class meetings.

0101	William Viviani	Seats (Total: 25)
	TuTh 3:10pm - 5:00pm	SQH 1111

TLPL414 **Knowing and Learning in Mathematics and Science**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSHS

Prerequisite: Must have completed or be concurrently enrolled in TLPL102. Credit only granted for: TLPL488M or TLPL414. Formerly: TLPL488M.

Special and intensive treatment of current topics and issues in mathematics and science teaching and learning, policy and leadership. The overall goal of the course is to orient future teachers to the discourses and theories that shape what we know about how students learn math and science.

0101	Anita Sanyal	Seats (Total: 24)
	W 4:00pm - 6:50pm	PHY 1108

TLPL420 **Knowledge, Reasoning, and Learning in Science**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL420 or EDCI411. Formerly: EDCI411.

For prospective science teachers. Investigations of the nature of knowledge, reasoning, and learning in middle and secondary science. Readings from cognitive science and science education research; studies of student thinking in interview and classroom observations; analyses of curricula. Includes laboratory and field experiences.

0101	Daniel Levin	Seats (Total: 0)
	TuTh 3:30pm - 4:45pm	EDU 1107

TLPL423 **Interdisciplinary Teaching in the Middle Grades I**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL413 and TLPL420; or permission of instructor. Corequisite: EDCI360 and TLPL475. Restriction: Minimum cumulative GPA of 2.75; and must be in the Middle School Teacher Education Program, major code 0804P. Credit only granted for: EDCI413 or TLPL423. Formerly: EDCI413.

For prospective middle school teachers. Studying and planning interdisciplinary instructional practices in middle school. Utilizes context and experiences from students' field placements. Use of technology and incorporation of technology into instruction.

0101	Angela Stoltz	Seats (Total: 0)
	Th 10:00am - 11:50am	LEF 1221

TLPL425 **Learning and Teaching in Science**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL420; or permission of instructor. Restriction: Must be in Secondary Educ: Science program. Credit only granted for: EDCI470 or TLPL425. Formerly: EDCI470.

Studies of student learning and instructional practices in science teaching.

0101	Jennifer Mesiner	Seats (Total: 24)
	M 2:30pm - 5:30pm	PLS 1130

TLPL433 **Foundations of Art Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75. Credit only granted for: EDCI403 or TLPL433. Formerly: EDCI403.

Introduction to the field of Art Education and the role of the visual arts in grades PreK-12 for today's diverse school populations. The fundamental, historical and philosophic components of art education with an emphasis on arts disciplines and curriculum. Includes a school-based practicum. For those considering art education as a major.

0101	Margaret Walker	Seats (Total: 19)
	Th 9:00am - 12:00pm	EDU 1315

TLPL436 **Studio Processes and Materials: 2D**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: ARTT210. Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department; and junior standing or higher; and must not be in any of the following programs (Early Childhood Education; Elementary Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Physical Education; Music Education; Special Education). Credit only granted for: EDCI406 or TLPL436. Formerly: EDCI406.

A discussion/studio format used to develop skills, materials, resources and education strategies for using technology and two-dimensional art in K-12 programs.

0101	Margaret Walker	Seats (Total: 10)
	Th 12:30pm - 4:05pm	EDU 1315

TLPL440 **Issues in the Education of English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI432 or TLPL440. Formerly: EDCI432.

Introduction to and analysis of current and historical research, practice, trends, and public policy issues in education as they relate to English language learners in K-12 and other settings.

0101	Sarah Moore	Seats (Total: 22)
	TuTh 9:30am - 10:45am	EDU 2102

TLPL442 **Foundations of Literacy and Biliteracy Development**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCI435 or TLPL442. Formerly: EDCI435.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

0101	Loren Jones	Seats (Total: 22)
	MW 11:00am - 12:15pm	EDU 3236

TLPL443 **Understanding Cross-Cultural Communication for Teaching English Language Learners**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

Credit only granted for: EDCI436 or TLPL443. Formerly: EDCI436.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Astrid Sierra Mejia	Seats (Total: 25)
	W 1:15pm - 4:00pm	EDU 3233

TLPL445 **Methods I: K-12 World Language Methods and Technology**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI410, TLPL445, EDCI688K, or TLPL695. Formerly: EDCI410.

The first of two sequential courses required for achieving competence i teaching a foreign language. The sequel to this course is EDCI433 (Methods II) entitled: Advanced K-12 Foreign Language Methods and Technology. EDCI410 requires on-going examination of theories relevant to language acquisition. Students will also investigate the instructional methods that reflect those theories. Lab and field experiences required.

0101	Antonio Perez Belda MW 2:00pm - 3:15pm	Seats (Total: 15) JMZ 1124

TLPL446 **Language Variation and Multilingualism in Elementary Classrooms**

Credits: 3 Grading Method: Regular

Restriction: Must be in Elementary Education program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department.

Issues in language variation and multilingualism in elementary classrooms, schools and communities with a focus on classroom practice, assessment, and policy.

0101	John Chi Tu 8:30am - 11:15am	Seats (Total: 0) EDU 3315
0201	Kellie Rolstad W 12:00pm - 2:45pm	Seats (Total: 0) LEF 1220
0301	Lindsey Allen, Faith Sears M 12:00pm - 2:45pm	Seats (Total: 0) TWS 1106

TLPL447 **Art Education Methods II**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: TLPL435; or students who have taken courses with comparable content may contact the department. Restriction: Minimum cumulative GPA of 2.75; and must be in Secondary Educ: Art program. Credit only granted for: EDCI423, EDCI603, TLPL447 or TLPL633. Formerly: EDCI423.

Methods II builds upon the pedagogical foundation of Methods I and provides future art teachers with the means for developing pre K-12 art lessons and unit plans for a balanced qualitative art program for today's diverse and inclusive schools and classrooms.

0101	Katherine Coogan Tu 9:00am - 12:00pm	Seats (Total: 3) EDU 1315

TLPL450 **Advanced K-12 World Language Methods and Technology**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL445. Corequisite: EDCI438. Restriction: Must be in Secondary Educ: Foreign Languages program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI433, EDCI688A, TLPL450 or TLPL696. Formerly: EDCI433.

Teaches advanced best practices for effective foreign language instruction. Topics include: using authentic assessment and materials, applying national standards, teaching writing and culture, motivating students, providing strategy instruction, infusing technology, preparing for K-12 employment, and creating a professional portfolio.

EDCI438 must be taken concurrently with EDCI433.

0101	Antonio Perez Belda	Seats (Total: 5)
	M 5:00pm - 7:45pm	ASY 3217

TLPL451 **Teaching and Learning in Secondary Education: English**

(Perm req)

Credits: 3 Grading Method: Regular General Education: DSSP

Credit only granted for: EDCI416 or TLPL451. Formerly: EDCI416.

An introduction for prospective middle and secondary English teachers into the basic issues, concepts, orientations, and processes that shape the teaching of English for diverse students in schools. Candidates explore their own perspectives in relation to local and national trends and develop basic teaching understanding and skills through on-campus seminars, teaching laboratory experiences, and guided field experiences. Students should reserve one full day or two half days per week for field experience.

0101	Peggy Wilson	Seats (Total: 25)	
	M 8:30am - 10:15am	EDU 1315	
	W 8:30am - 10:15am	EDU 2121	Lab

TLPL456 **Teaching Writing**

(Perm req)

Credits: 3

Grading Method: Regular, Pass-Fail, Audit

Corequisite: EDCI447. Restriction: Must be in Secondary Educ: English Language Arts program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI467 or TLPL456. Formerly: EDCI467.

Examines current theory, research, best practice, curricula and materials for teaching written communication in grades K-12. Focuses on analytical, argumentative, informative/explanatory, literary analysis, narrative, descriptive, and research writing. Emphasizes instructional planning, assessment, writer problem-solving strategies, information search, development, organization and style appropriate to task, purpose and audience for both non-digital and digital text. English Language Learner and special needs pupil issues considered.

0101	Wayne Slater	Seats (Total: 30)
	Th 5:00pm - 7:45pm	KNI 1105

TLPL457 **Literature for Adolescents**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU

Restriction: Minimum cumulative GPA of 2.75; and permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI466 or TLPL457. Formerly: EDCI466.

Reading and analysis of fiction and nonfiction; methods for critically assessing quality and appeal; current theory and methods of instruction; research on response to literature; curriculum design and selection of books.

0101	Melanie Hardy	Seats (Total: 30)
	MW 11:00am - 12:15pm	ASY 1213

TLPL460 **Materials and Instruction for Creating Skilled and Motivated Readers, Part I**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must be in Elementary Education program; and junior standing or higher. Or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI461 or TLPL460. Formerly: EDCI461.

Selecting, evaluating, and using a variety of materials and instructional strategies to create skilled and motivated readers in the elementary grades; Topics include emergent literacy, vocabulary development, reading comprehension and oral reading fluency in diverse classroom settings.

Contact department for information to register for this course.

TLPL462 **Reading in the Secondary School**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Minimum cumulative GPA of 2.75; and must be in one of the following programs (Middle School Education; Secondary Educ: Science; Secondary Educ: English Language Arts; Secondary Educ: Mathematics; Secondary Educ: Foreign Languages; Secondary Educ: Social Studies; Secondary Educ: Art) ; and permission of department required for post-baccalaureate students. Credit only granted for: EDCI463 or TLPL462. Formerly: EDCI463.

Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

0101	Olivia Saracho	Seats (Total: 22)
	W 3:30pm - 6:00pm	EDU 1107

TLPL470 **Knowledge, Reasoning, and Learning in Secondary Social Studies**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department; and minimum cumulative GPA of 2.75. Credit only granted for: EDCI426 or TLPL470. Formerly: EDCI426.

An exploration of the nature of knowledge and reasoning in social studies disciplines as well as how students learn social studies. Assessment and investigation of students' conceptions and misconceptions as well as their disciplinary thinking. Implications for teaching and initial lesson design are explored through on-campus seminars as well as guided field experiences. Students should reserve a regular half-day per week for the field experience in local schools. This course is required for admission to the secondary social studies double major.

0101	Lisa Eaker Th 4:15pm - 7:00pm	Seats (Total: 30) JMZ 3205
IH60	Lisa Eaker Th 4:15pm - 7:00pm	Seats (Total: 1) JMZ 3205

TLPL471 **Curriculum, Teaching, and Assessment in Secondary Social Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Prerequisite: TLPL470. Corequisite: EDCI428. Restriction: Must be in Secondary Educ: Social Studies program; and minimum cumulative GPA of 2.75. Or permission of EDUC-Center for Learning & Educational Technology. Credit only granted for: EDCI427 or TLPL471. Formerly: EDCI427.

An exploration of curriculum development, teaching, and assessment in secondary history/social studies. Focus on identifying students' conceptions of social studies topics and designing lessons that advance students' disciplinary thinking and understanding.

0101	Alison Jovanovic M 4:30pm - 7:30pm	Seats (Total: 15) TWS 1100

TLPL475 **Equitable Classrooms**

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: TLPL252, TLPL413, and TLPL420. Corequisite: EDCI360 and TLPL423. Restriction: Minimum cumulative GPA of 2.75; and must be in Middle School Education program. Credit only granted for: EDCI424 or TLPL475. Formerly: EDCI424.

An exploration and application of major theoretical frameworks surrounding equity and critical pedagogy. Creating habits of mind that help teachers see all students as capable of achieving at high levels. Draws on the concurrent field experience.

0101	Rolonda Payne Tu 10:00am - 12:00pm	Seats (Total: 0) EDU 3236

TLPL478A **Professional Seminar in Education; Art Education**

Credits: 1 Grading Method: Regular

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Katherine Coogan Tu 12:00pm - 1:00pm	Seats (Total: 20) EDU 3236

TLPL478G **Professional Seminar in Education; Elementary Education**

Credits: 1 Grading Method: Regular, Pass-Fail

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

0101	Lisa Bote F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 1100
0201	Lisa Bote F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 1100
0301	Lisa Bote F 12:45pm - 3:45pm Contact instructor or department for details.	Seats (Total: 0) TWS 1100

TLPL479A **Field Experiences in Education; Art Education**

(Perm req)

Credits: 3 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Katherine Coogan Contact instructor or department for details.	Seats (Total: 10)

TLPL479B **Field Experiences in Education; Secondary Social Studies Education**

(Perm req)

Credits: 2 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Alison Jovanovic Contact instructor or department for details.	Seats (Total: 35)

TLPL479C **Field Experiences in Education; English Education**

(Perm req)

Credits: 2 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Secondary English/speech/drama education majors only. Students must reserve one full day per week for observation.

0101	Peggy Wilson	Seats (Total: 25)
	Contact instructor or department for details.	

TLPL479D **Field Experiences in Education; Secondary Mathematics Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Farhaana Nyamekye-Frazier	Seats (Total: 20)
	Contact instructor or department for details.	

TLPL479E **Field Experiences in Education; Middle School Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Angela Stoltz	Seats (Total: 0)
	Contact instructor or department for details.	

TLPL479F **Field Experiences in Education; Science Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Tranae Johnson	Seats (Total: 15)
	Contact instructor or department for details.	

TLPL479G **Field Experiences in Education; Tutoring**

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Purchase of LiveText ($139) is required for this course. A fee for fingerprinting may be required.

0102	Jaclyn Klueger Stief Tu 7:30am - 10:30am	Seats (Total: 12) Location: TBA
0103	Jaclyn Klueger Stief W 7:30am - 10:30am	Seats (Total: 12) Location: TBA
0104	Jaclyn Klueger Stief Th 7:30am - 10:30am	Seats (Total: 12) Location: TBA
0105	Jaclyn Klueger Stief M 2:00pm - 5:00pm	Seats (Total: 10) Location: TBA
0106	Jaclyn Klueger Stief Tu 2:00pm - 5:00pm	Seats (Total: 15) Location: TBA
0107	Jaclyn Klueger Stief W 2:00pm - 5:00pm	Seats (Total: 15) Location: TBA
0108	Jaclyn Klueger Stief Th 2:00pm - 5:00pm	Seats (Total: 15) Location: TBA

TLPL479J **Field Experiences in Education; Second Language Education**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Antonio Perez Belda Contact instructor or department for details.	Seats (Total: 10)

TLPL479L **Field Experiences in Education; Agriculture Education**

Credits: 1 Grading Method: Sat-Fail

Field experiences in approved eduation setting with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

0101	Melissa Welsh	Seats (Total: 10)
	Contact instructor or department for details.	

TLPL481 **Embracing Diversity in the Classroom Community**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Admission to teacher education program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: TLPL481 or EDCI475. Formerly: EDCI475.

An exploration of the richness and complexity of student diversity that teacher candidates will encounter in K-12 classrooms. Students will engage in critical reflection around diversity and equity issues.

0101	Amber Johnson	Seats (Total: 25)
	Tu 3:30pm - 6:15pm	ASY 3207

TLPL488B **Special Topics in Education; Teaching Academically, Culturally and Linguistically Divers e Students in Secondary Education**

(Perm req)

Credits: 2 Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Sara Pepkin Dataram, Kellie Rolstad	Seats (Total: 0)
	TuTh 9:00am - 9:50am	EDU 2101
0201	Kia McDaniel	Seats (Total: 20)
	W 5:30pm - 7:15pm	EDU 3236

TLPL488V **Special Topics in Education; History of Art Education**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Margaret Walker	Seats (Total: 5)
	Tu 4:15pm - 7:00pm	EDU 1315

TLPL489 **Internship in Education**

(Perm req)

Credits: 1-12 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489A **Internship in Education; Art**

(Perm req)

Credits: 12 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489B **Internship in Education; Social Studies/History**

Credits: 1-12 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489D **Internship in Education; Mathematics**

(Perm req)

Credits: 12 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL489G **Internship in Education; TEACHING RESIDENCY**

(Perm req)

Credits: 2 Grading Method: Regular

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Students must pay a $375.00 lab fee.

0101	Deborah Lewin Contact instructor or department for details. *Field Experience is Wednesday and Thursday. Time will follow the assigned school schedule.*	Seats (Total: 0)
0201	Brooke Dalesio Contact instructor or department for details. *Field Experience is Monday and Tuesday. Time will follow the assigned school schedule.*	Seats (Total: 0)
0301	Tracy Dunheimer Contact instructor or department for details. *Field Experience is Wednesday and Thursday. Time will follow the assigned school schedule.*	Seats (Total: 0)

TLPL489Z **Internship in Education; Elementary Education Residency**

(Perm req)

Credits: 9

Grading Method: Regular, Pass-Fail

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL498 **Special Problems in Education**

(Perm req)

Credits: 1-3

Grading Method: Regular, Pass-Fail, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to students who have definite plans for study of approved problems.

Contact department for information to register for this course.

TLPL606 **Teaching and Learning Mathematics in Secondary Schools**

Credits: 3

Grading Method: Regular, Audit

Prerequisite: Enrollment in a University of Maryland program leading to teacher certification; and bachelor's degree in mathematics or related field; and 2 semesters of calculus. Credit only granted for: EDCI651 or TLPL606. Formerly: EDCI651.

Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks, technology and other instructional materials; assessment of student learning and other topics pertinent to secondary mathematics education. Internship of other placement in a secondary mathematics classroom is required.

Prerequisite: Permission of department.

Contact department for information to register for this course.

TLPL607 **Teaching and Learning Mathematics in the Elementary School**

Credits: 3

Grading Method: Regular

Prerequisite: MATH212, MATH213, or MATH214; or students who have taken courses with comparable content may contact the department. Credit only granted for: EDCI652 or TLPL607. Formerly: EDCI652.

Strategies and methodologies for the teaching of elementary school mathematics based on current research and theories about how children learn mathematics. Attention is given to professional recommendations and teaching practices that foster communication, reasoning, and reflection in the mathematics classroom. Internship or other placement in an elementary school is required.

Contact department for information to register for this course.

TLPL616 **Teaching and Learning Statistics in the Middle School**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Prerequisite: Admission to M.Ed. or M.A. program in EDCI with concentration in Mathematical Education. Credit only granted for: EDCI656 or TLPL616. Formerly: EDCI656.

Designed to enhance both the pedagogical and statistical/data analysis content knowledge of middle school mathematics teachers.

Contact department for information to register for this course.

TLPL618 **Digital Learning Tools and Communities**

Credits: 1 Grading Method: Regular

Addresses the student learning outcomes outlined by the Interstate Teacher Assessment and Support Consortium(InTASC). When this course is successfully completed, students will be able to competently integrate technology into instruction to support student learning and develop research-based strategies for instructional and school improvement. Students are expected to demonstrate proficiency in each of the seven Maryland Teacher Technology Standards as well as the International Society for Technology Educator Standards.

Contact department for information to register for this course.

TLPL621 **Learning and Teaching in the Physical Sciences I**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Restriction: Enrollment in an EDCI Outreach Program in science education; or must be in Curriculum and Instruction (Master's) program; or permission of instructor. Credit only granted for: EDCI604 or TLPL621. Formerly: EDCI604.

Engagement in laboratory and inquiry-based methods to develop coherent understandings about the physical world and explore issues in the physical sciences. Personal engagements with phenomena and reflection on the learning and instructional experiences.

Contact department for information to register for this course.

TLPL625 **Teaching Science in Elementary Schools**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI671 or TLPL625. Formerly: EDCI671.

Identification of problems in teaching science. Methods for improving the effectiveness of science education.

Contact department for information to register for this course.

TLPL626 **Learning to Teach and Learn Science**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL420; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Restriction: Must be in the Maryland Master's Certification program; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI675 or TLPL626. Formerly: EDCI675.

Developing practices of instruction in science teaching in the context of understanding student science learning.

Contact department for information to register for this course.

TLPL631 Historical Foundations of the Arts in Education

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI601 or TLPL631. Formerly: EDCI601.

An investigation into major historical events and underlying beliefs, values and practices that influence contemporary arts education (visual art, drama, dance, music) at all levels of instruction. Selected literature that focuses on cultural contexts, individuals, institutions, events and national and international perspectives is used to investigate changing conceptions and practices of arts education.

0101	Margaret Walker	Seats (Total: 17)
	Tu 4:15pm - 7:00pm	EDU 1315

TLPL633 Integrated Art Methods

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCI680; or TLPL435. Restriction: Must be in a major within the EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI423, EDCI603, TLPL447 or TLPL633. Formerly: EDCI603.

Builds upon the pedagogical foundation of an initial art education methods course and provides future art teachers with the means for developing PreK-12 art lesson/unit plans for a balanced qualitative art program for today's diverse and inclusive schools/classrooms. Integratin g art with other subject areas.

Contact department for information to register for this course.

TLPL640 Assessing, Diagnosing, and Teaching Writing

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI673 or TLPL640. Formerly: EDCI673.

Examines current theory, research, best practice, curricula and materials for teaching written communication in middle and secondary schools in order to survey, review and select formal and informal assessments and diagnostic strategies useful for writing teachers. Focuses on validity and reliability issues. Includes instructional planning and development of instructional materials for implementing appropriate individual, small-group and large-group instruction. English Language Learner (TESOL and SIOP) and special needs (inclusion) pupil issues considered.

Contact department for information to register for this course.

TLPL641 Reading, Cognition, and Instruction: Reading in the Content Areas I

Credits: 3 Grading Method: Regular

Credit only granted for: EDCI625 or TLPL641. Formerly: EDCI625.

Provides middle and secondary education students with an understanding of the interactive nature of the reading process, the use of research-based instructional strategies, the relationship between vocabulary development and student concept development, the design of strategic reading instruction, the methods for assessing content area literacy, and the ability to plan instruction and communicate with students, parents, and allied professionals.

Contact department for information to register for this course.

TLPL645 **Content Area Reading**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDCI362; or TLPL462; or students who have taken courses with comparable content may contact the department. Credit only granted for: EDCI661 or TLPL645. Formerly: EDCI661.

Research-based strategies for improving reading to learn in the content areas (K-12).

0101	Ying Alice Zhang	Seats (Total: 13)
	Tu 5:00pm - 7:45pm	EDU 2121

TLPL653 **Clinical Assessment in Reading**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL645 and TLPL650; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI664 or TLPL653. Formerly: EDCI664.

Clinical diagnostic techniques and materials for assessing reading strengths and needs.

0101	Ayanna Baccus	Seats (Total: 20)
	M 5:00pm - 7:45pm	ASY 3215

TLPL656 **Teaching Culturally and Linguistically Diverse Exceptional Learners**

Credits: 3 Grading Method: Regular

Credit only granted for: EDCI632 or TLPL656. Formerly: EDCI632.

Explores cross-cultural and linguistic diversity as they relate to identification procedures for and education of English learners with exceptional needs beyond the second language acquisition process such as learning disabilities and gifted & talented.

0101	Drew Fagan	Seats (Total: 15)
	Th 5:00pm - 8:00pm	EDU 1107

TLPL657 **Teaching for Cross Cultural Communication**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI633 or TLPL657. Formerly: EDCI633.

Theories of intercultural communication and techniques for applying them in the teaching of English as a second language (ESL) and content classes. Research and evaluation of selected aspects of a culture as basis for creating, selecting and using culturally-responsive teaching materials and methods.

0101	Kellie Rolstad	Seats (Total: 13)
	W 5:00pm - 7:45pm	ASY 3217

TLPL660 **Foundations of Literacy and Biliteracy Development**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL665. Credit only granted for: EDCI636 or TLPL660. Formerly: EDCI636.

An overview of the research on literacy and biliteracy development for English learners. Specifically, the course explores the theoretical models and processes of teaching reading and writing, current literacy/biliteracy issues, assessment, and strategies for developing literacy and biliteracy skills for English learners.

Contact department for information to register for this course.

TLPL661 **Multiliteracies: Theory and Practice**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL665. Credit only granted for: EDCI638, EDCI688J, or TLPL661. Formerly: EDCI638 and EDCI688J.

Explores the theoretical constructs and practical manifestations of multiliteracies in communities and schools by presenting an overview of the research on the constructs of New Literacy Studies, Critical Literacy, Digital Literacy, and Funds of Knowledge, as well as the practical implications of teaching reading and writing to culturally and linguistically diverse learners in content areas (i.e., language arts, math, science, social studies, etc.) in classrooms.

0101	Andres Garcia	Seats (Total: 15)
	M 5:00pm - 7:45pm	EDU 2119

TLPL662 **Second Language Acquisition**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI732 or TLPL662. Formerly: EDCI732.

Major theoretical approaches to second language acquisition. For teaching English to speakers of other languages (TESOL).

Contact department for information to register for this course.

TLPL664 **Foundations of Second Language Education: Legal, Social and Historical Trends and Issues**

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: EDCI630 or TLPL664. Formerly: EDCI630.

Knowledge of history, research, current practice and public policy issues in the field of second languague education from kindergarten to post-secondary settings. Required for TESOL certification program.

0101	Jeff MacSwan	Seats (Total: 20)
	Class time/details on ELMs	ONLINE

TLPL665 **Methods of Teaching ESOL**

Credits: 3

Grading Method: Regular, Audit

Credit only granted for: EDCI634 or TLPL665. Formerly: EDCI634.

This course presents a survey of the historical and current approaches, methods, and techniques of teaching English to speakers of other languages, from grammar to translation to audiolingual and communicative approaches. Additionally, successful classroom practices that address the needs of culturally diverse and language minority students will be analyzed.

0101	Jessica Crawford	Seats (Total: 20)
	M 5:00pm - 7:45pm	TWS 1320

TLPL668 **Developing a Professional Portfolio**

Credits: 1-3

Grading Method: Regular, Audit, Sat-Fail

Students will examine issues of performance assessment and develop professional portfolios following the guidelines established by the National Board of Professional Teaching Standards. Drawing on the research data collected throughout their program and relying on inquiry, reflections, and analysis, they will synthesize and present the body of their teaching experience.

Contact department for information to register for this course.

TLPL671 **Education Policy Analysis**

Credits: 3

Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDPS620 or TLPL671. Formerly: EDPS620.

Policy making in education from planning to evaluation with emphasis on the identification of policy problems and the resources available to analysts through multi-disciplinary approaches. An introductory experience with education policy analysis.

0101	Betty Malen	Seats (Total: 15)
	M 4:15pm - 7:00pm	EDU 1121

TLPL674 **Studying Student Learning in Diverse Settings**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI611 or TLPL674. Formerly: EDCI611.

This course deepens teacher understanding of student development and th cultural context for teaching through readings and focused field studies. Participants will also begin developing skills needed for investigations using methods of interpretive inquiry.

Contact department for information to register for this course.

TLPL678 **Professional Seminar in Education**

Credits: 1-3 Grading Method: Regular, Audit

Seminar on the issues and problems teacher candidates encounter in classrooms. Exploration of the skills and strategies that best address these challenges.

Contact department for information to register for this course.

TLPL685 **Teaching Social Studies in Elementary Schools**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: EDCI622 or TLPL685. Formerly: EDCI622.

Examination of current literature and research in the social sciences as they relate to social studies curriculum and instruction.

Contact department for information to register for this course.

TLPL686 **Secondary Social Studies Pedagogy**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL470; or EDCI680. Credit only granted for: EDCI627 or TLPL686. Formerly: EDCI627.

The second course in a three-course teaching methods sequence. Addresses two key questions: (1) How do secondary school students think about and learn history/social studies? (2) How can secondary teachers teach history/social studies in ways that promote student learning?

Contact department for information to register for this course.

TLPL689 **Internship in Education**

Credits: 1-9 Grading Method: Regular, Audit

Internship or residency experiences in school settings with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students admitted to approved teacher education programs.

Student lab fee may apply. Contact program for details.

0101	Antonio Perez Belda Contact instructor or department for details.	Seats (Total: 10)
0201	Loren Jones Contact instructor or department for details.	Seats (Total: 10)

TLPL695 **Methods I: K-12 World Language Methods and Technology**

Credits: 3 Grading Method: Regular

Credit only granted for: EDCI410, TLPL445, EDCI688K, or TLPL695. Formerly: EDCI688K. Additional information: Lab and field experiences required.

TLPL 695 requires on-going examination of theories relevant to language acquisition. Students will also investigate the instructional methods that reflect those theories.

0101	Antonio Perez Belda MW 2:00pm - 3:15pm	Seats (Total: 5) JMZ 1124

TLPL696 **Advanced K-12 World Language Methods and Technology**

(Perm req)

Credits: 3 Grading Method: Regular

Prerequisite: TLPL695; and TLPL695. Corequisite: Must be concurrently enrolled in TLPL479J. Credit only granted for: EDCI433, EDCI688A, TLPL450 or TLPL696. Formerly: EDCI688A.

Teaches advanced best practices for effective World Language instruction. Topics include: lesson planning, using authentic assessment and materials, applying national and state standards infusing culture, interdisciplinary content and technology. Classroom management procedures and strategies to create a welcoming and engaging classroom environment. Motivating students and differentiated instruction.

0101	Antonio Perez Belda M 5:00pm - 7:45pm	Seats (Total: 5) ASY 3217

TLPL698 **Conducting Research on Teaching**

(Perm req)

Credits: 1-2 Grading Method: Regular

Analysis and improvement of educational practice. Research methods used in the study of classroom teaching. Design and conduct of an action research project. Open only to students admitted to approved teacher education programs.

Contact department for information to register for this course.

TLPL699 **Master's Seminar**

Credits: 3 Grading Method: Regular, Audit

Directed study for master's degree students writing seminar papers.

Contact department for information to register for this course.

TLPL702 **Theories of Learning and Leadership with Technology**

Credits: 3

Grading Method: Regular,
Audit

Credit only granted for: EDCI788Q or TLPL702. Formerly: EDCI788Q. Additional information: Priority will be given to students in the Technology Learning and Leadership specialization.

Exploration of the impact technology has on how people learn,and how people use technology effectively to facilitate learning. Discussion of theories of designing technology for effective teaching and learning, and examinations of the challenges of implementing technology in education systems.

0101	Sarah McGrew Tu 4:15pm - 7:00pm	Seats (Total: 20) JMZ 1120

TLPL704 **Research Methodologies and Educational Practice**

Credits: 3

Grading Method: Regular,
Audit

Restriction: Must be in Teaching and Learning, Policy and Leadership Master of Arts program; or permission of instructor. Credit only granted for: TLPL788W or TLPL704. Formerly: TLPL788W.

Introduction to methodological approaches commonly used in educational research with a focus on addressing issues in teaching and learning, schools and communities, and educational policy.

0101	Manny Zapata, Alexis Young Th 4:15pm - 7:00pm	Seats (Total: 20) EDU 2102

TLPL708A **Special Topics in Technology, Learning & Leadership; Seminar**

Credits: 1

Grading Method: Regular,
Audit

Read, plan, conduct, and report on research projects and research topics related to Technology, Learning & Leadership. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	David Weintrop Tu 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 10) TWS 1321 ONLINE

TLPL713 **Mathematics and Science Education Policy, Professional Development and Teacher Preparation**

Credits: 3

Grading Method: Regular,
Audit, Sat-Fail

Prerequisite: Admitted to Doctoral Program in Mathematics Education or Science Education; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI754 or TLPL713. Formerly: EDCI754.

Preservice teacher education, professional development, and policy as agents of reform in mathematics education and in science education.

0101	Andrew Brantlinger	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 2121

TLPL728 **Research Seminar in Mathematics and Science Education**

Credits: 1 Grading Method: Regular, Audit

Read, plan, conduct, and report on research projects and research topics in mathematics and science education. Projects may be faculty/student projects, or group or individual student projects (may or may not be related to a dissertation). Emphasis on framing researchable questions and designing/analyzing research studies. Faculty and peer feedback and interaction are crucial expectations.

0101	Daniel Chazan	Seats (Total: 13)
	F 10:00am - 1:30pm	EDU 2121

TLPL743 **Teaching English Language Learners: Current and Future Research Directions**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Prerequisite: TLPL771 or TLPL662; or permission of EDUC-Teaching and Learning, Policy and Leadership department. Credit only granted for: EDCI734 or TLPL743. Formerly: EDCI734.

Research on the preparation of generalists and specialists teaching English Language Learners. Current research and future research directions.

Contact department for information to register for this course.

TLPL763 **Phenomenological Inquiry II**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: TLPL762. Credit only granted for: EDPS736 or TLPL763. Formerly: EDPS736.

This advanced course in phenomenological methodology provides an expanded philosophic and methodological grounding for conducting phenomenological research. Attention is given to the development of phenomenological projects through the process of phenomenological writing. It is especially relevant for persons interested in the study of lived meanings in the domains of education, psychology, counseling, the health sciences and related academic and professional fields.

0101	Margaret Peterson	Seats (Total: 20)
	W 4:15pm - 7:00pm	Location: TBA

TLPL765 **Quantitative Applicaltions for Education Policy Analysis**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: EDMS645; or students who have taken courses with comparable content may contact the department. Recommended: EDMS646; or EDMS651. Or EDMS646; and EDMS651. Credit only granted for: EDPS703 or TLPL765. Formerly: EDPS703.

Students use quantitative applications and secondary datasets to investigate social problems and education policies. Emphasis on the use of quasi-experimental designs and regression techniques to frame education issues, analyze, and recommend policies.

0101	Jing Liu	Seats (Total: 20)
	M 1:00pm - 3:45pm	EDU 3236

TLPL767 **Law, Equity, and Diversity in Education**

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: TLPL767 or EDPS751. Formerly: EDPS751.

An examination of 'dilemmas of difference' on selected issues that arise at the intersection of law and education policy. Dilemmas and value conflicts imbedded in modern federal and state case law dealing with race, gender, sexual orientation, religion and disability.

0101	Campbell Scribner	Seats (Total: 25)
	Tu 4:15pm - 7:00pm	EDU 3233

TLPL774 **Urban Education**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Credit only granted for: EDCI776 or TLPL774. Formerly: EDCI776.

This seminar provides students with a broad overview of urban education as a field of inquiry by examining the social context of urban schools, how transformative pedagogy is practiced and conceptualized as well as school reform.

0101	Tara Brown	Seats (Total: 20)
	Tu 4:15pm - 7:00pm	ARC 1101

TLPL788D **Special Topics in Education; Data Management for Social Science Research**

Credits: 1 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

Class will be held in the COE Computer Lab in Benjamin Building.

0101	Francisco Lagos Marin	Seats (Total: 20)
	M 12:00pm - 12:50pm	Location: TBA

TLPL788E **Special Topics in Education; Professional Seminar in Urban Education**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Tara Brown	Seats (Total: 20)
	W 4:15pm - 7:00pm	ASY 2309

TLPL788I **Special Topics in Education; Sociolinguistics**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Laura Mahalingappa	Seats (Total: 12)
	Th 5:00pm - 7:45pm	EDU 2121

TLPL788K **Special Topics in Education; Teacher Cognition**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Janet Walkoe	Seats (Total: 15)
	W 9:00am - 12:00pm	ASY 3217

TLPL788M **Special Topics in Education; Education Policy Research Workshop**

Credits: 1 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	David Blazar	Seats (Total: 15)
	Tu 12:00pm - 12:50pm	EDU 1315

TLPL788O **Special Topics in Education; Immigration and Education: Ethnographies of Global Migration**

Credits: 3 Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Sophia Rodriguez	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 3236

TLPL788Q **Special Topics in Education; Seminar in Teacher Education and Professional Development**

(Perm req)

Credits: 1

Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Lindsey Allen	Seats (Total: 20)
	F 12:00pm - 2:00pm	ONLINE

TLPL788U **Special Topics in Education; Race and Whiteness**

Credits: 3

Grading Method: Regular, Audit

Special and intensive treatment of current topics and issues in teaching, learning, policy and leadership.

0101	Rossina Liu	Seats (Total: 20)
	M 4:15pm - 7:00pm	EDU 1107

TLPL789 **Internship in Education**

Credits: 1-3

Grading Method: Sat-Fail

Approved professional experiences with appropriate supervision. Open only to students admitted to approved master's and doctoral specializations.

Contact department for information to register for this course.

TLPL791 **Qualitative Research I: Design and Fieldwork**

(Perm req)

Credits: 3

Grading Method: Regular, Audit

Prerequisite: EDCI790. Credit only granted for: EDCI791 or TLPL791. Formerly: EDCI791.

Examines the theoretical and epistemological moorings of different types of qualitative research. Students apply selected field research methods to problems of professional practice in schools and communities while considering central issues and dilemmas that arise while engaging in fieldwork.

0101	Jennifer Turner	Seats (Total: 20)
	W 4:35pm - 7:20pm	EDU 2121

TLPL794 **Foundations of Educational Research I**

Credits: 3

Grading Method: Regular

Restriction: Must be in Teaching and Learning, Policy and Leadership (Doctoral) program. Credit only granted for: EDPS788P or TLPL794. Formerly: EDPS788P.

An introduction to the "contested terrain" of education research. It examines major conceptual, methodological and political issues embedded in efforts to carry out education research and focuses on the development of the analytic dispositions and communication skills required to carry out research that meets the variously defined quality, utility and significance standards of scholarship in the field.

0101	Claudia Galindo	Seats (Total: 25)
	Th 4:15pm - 7:00pm	EDU 2119

TLPL798 **Special Problems in Education**

(Perm req)

Credits: 1-6 Grading Method: Regular, Audit

Exploration of current problems in teaching, learning, policy and leadership. Available only to master's or doctoral candidates under the direction of their advisors.

Contact department for information to register for this course.

TLPL799 **Master's Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

TLPL888 **Apprenticeship in Education**

(Perm req)

Credits: 1-8 Grading Method: Regular, Audit

Apprentice practice under professional supervision in an area of competence compatible with the student's professional goals. Credit not to be granted for experience accrued prior to registration. Open only to degree- and certificate-seeking graduate students.

Contact department for information to register for this course.

TLPL889 **Internship in Education**

(Perm req)

Credits: 3-8 Grading Method: Regular, Audit

Internship experiences at a professional level of competence in a particular role with appropriate supervision. Credit not to be granted for experience accrued prior to registration. Open only to students advanced to candidacy for doctoral degree.

Contact department for information to register for this course.

TLPL898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

TLPL899 **Doctoral Dissertation Research**

(Perm req)

Credits: 1-8 Grading Method: Sat-Fail

Registration required to the extent of 6-9 hours for an Ed.D. Project and 12-18 hours for a Ph.D. Dissertation.

Contact department for information to register for this course.

TLTC Teaching and Learning Transformation Center Fall 2022

TLTC310 **Leadership in Collaborative Learning Groups**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSSP

Restriction: Restricted to students selected to participate in the Guided Study Sessions through the Teaching and Learning Transformation Center. Credit only granted for: HESI318N or TLTC310. Formerly: HESI318N.

Experiential learning opportunity that applies principles of leadership, peer mentoring, and learning theory to the planning and facilitation of peer-led collaborative learning sessions. Incorporates research, reasoning, evidence, and feedback to develop a reflective practice.

0101	Danielle Pafe W 5:00pm - 6:15pm Contact instructor or department for details.	Seats (Total: 20) JMZ 3122
0102	Danielle Pafe Th 3:30pm - 4:45pm Class time/details on ELMs	Seats (Total: 20) LEF 1222 ONLINE

TLTC333 Fundamentals of Academic Peer Mentoring

Credits: 1 Grading Method: Regular

How should scientific research influence the way we study and advance the academic performance of others? Learn about the scholarship of teaching and learning and develop the applied skills to support active learning as an academic peer mentor. Whether or not you ultimately pursue a career as an educator, the more effectively you can coach and support the performance of other people, and the more successful you will be. Guided online and face-to-face participation will culminate in a portfolio of your teaching activities and professional development.

Click here for more course information.

0101	Mona Thompson, Danielle Pafe M 10:00am - 10:50am Class time/details on ELMs *his section will meet virtually on the following dates: Sept. 12, Oct. 10, and Nov. 14.*	Seats (Total: 40) ONLINE ONLINE
0102	Mona Thompson, Danielle Pafe M 3:00pm - 3:50pm Class time/details on ELMs *This section will meet virtually on the following dates: Sept. 12, Oct. 10, and Nov. 14.*	Seats (Total: 40) ONLINE ONLINE
0103	Mona Thompson, Danielle Pafe M 4:00pm - 4:50pm Class time/details on ELMs *This section will meet virtually on the following dates: Sept. 12, Oct. 10, and Nov. 14.*	Seats (Total: 40) ONLINE ONLINE

0105	Danielle Pafe Tu 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 40) ONLINE ONLINE

This section will meet virtually on the following dates: Sept. 13, Oct. 11, and Nov. 15.

TLTC399 **Independent Study in Academic Peer Mentoring**

(Perm req)

Credits: 1-3 Grading Method: Regular

Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Prerequisite: Must have completed or be concurrently enrolled in TLTC333. Restriction: Permission of TLTC required - enrollment restriction. Repeatable to 6 credits. Earn academic credit for the time spent supporting a course in TLTC's Academic Peer Mentoring Program (AMP).

Contact department for information to register for this course.

TLTC499A **Independent Study in Teaching and Learning**

(Perm req)

Credits: 1-3 Grading Method: Regular

Earn academic credit for the time spent supporting TLTC's educational development programs and/or engaging in the scholarship of teaching and learning.

Restriction: Permission of TLTC required. Contact the department for information to register for this course.

0101	Danielle Pafe Contact instructor or department for details.	Seats (Total: 10)
0102	Danielle Pafe Contact instructor or department for details.	Seats (Total: 10)

UMEI Maryland English Institute Fall 2022

UMEI003 **English as a Foreign Language: Intermediate II**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Instructor: TBA MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) Location: TBA Location: TBA

UMEI004 **English as a Foreign Language: Intermediate III**

(Perm req)

Credits: 12 Grading Method: Sat-Fail

Restriction: Permission of EDUC-Dean-Maryland English Institute department.

Intensive course for the non-native speaker of English who has a good command of the basic features of spoken and written English. Emphasis on refining speaking and listening skills, on improving reading speed and comprehension of academic texts, and on developing writing skills for academic courses. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Heather Mehrtens, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) SQH 2113 SQH 2113
0301	Heather Mehrtens, Louise Godley MTuWThF 9:00am - 11:50am MTuWThF 1:00pm - 2:50pm	Seats (Total: 20) COL 3110 COL 3110

UMEI005 **Advanced English as a Foreign Language**

Credits: 6 Grading Method: Sat-Fail, Audit

Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Marilena Draganescu MTuThF 9:00am - 10:50am *This section is restricted to Graduate Students.*	Seats (Total: 15) ARC 1123
0201	Louise Godley MTuThF 1:00pm - 2:50pm *This section is restricted to Undergraduate Students.*	Seats (Total: 15) SQH 1125

0301	Marilena Draganescu MF 1:00pm - 2:50pm TuTh 1:00pm - 2:50pm *This section is restricted to Graduate Students.*	Seats (Total: 15) EDU 1315 ASY 3219
0501	Eric Walker MTuWTh 9:00am - 10:50am *This section is restricted to Graduate Students.*	Seats (Total: 15) ARC 1125

UMEI006 **English Pronunciation**

(Perm req)

Credits: 2 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

0101	Charles Duquette MW 1:00pm - 2:30pm	Seats (Total: 16) ASY 3219
0201	Charles Duquette TuTh 9:00am - 10:30am	Seats (Total: 16) ASY 3219

UMEI007 **Advanced Writing for International Students**

Credits: 3 Grading Method: Sat-Fail, Audit

Restriction: Must have graduate standing.

A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

Restriction: Must have graduate standing.

0101	Charles Duquette TuTh 1:00pm - 2:50pm	Seats (Total: 15) JMZ 2123
0201	Charles Duquette MW 9:00am - 10:50am	Seats (Total: 15) SQH 1125

0301	Raymond Smith MW 10:00am - 11:50am	Seats (Total: 15) SQH 1123
0401	Eric Walker MW 1:00pm - 2:50pm	Seats (Total: 15) JMZ 0118

UNIV University Courses Fall 2022

UNIV099 **Internship Seminar**

(Perm req)

Credits: 0 Grading Method: Sat-Fail

Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

0101	Jenny Sak, Erica Ely Contact instructor or department for details.	Seats (Total: 90)

UNIV100 **The Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0101	Devyn Sturdavant **Meets September 7, 2022 - November 19, 2022** Tu 11:00am - 12:20pm *Restricted to first semester students enrolled in UTerp program.*	Seats (Total: 20) HBK 0105
0102	Jonathan Malone **Meets September 7, 2022 - November 24, 2022** W 1:00pm - 2:50pm *Open to first-semester freshmen. This course invites international students and students with substantial experience living in the United States to work collaboratively, engaging in cross-cultural exchange while learning about UMD.*	Seats (Total: 20) HBK 0109

0201	Kenneth Kokason W 11:00am - 12:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) LEF 1201
0202	Hermione Pickett, Danielle Worsham W 1:00pm - 2:20pm Class time/details on ELMs *Restricted to First Semester BSOS Majors. Online Classes will be held on 9/21; 10/19; and 11/19.*	Seats (Total: 27) TYD 1114 ONLINE
0203	Kirtana Kalavagunta Th 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) ASY 3219
0204	Christie Cradock Tu 10:00am - 11:20am *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) SQH 2120
0205	Bailey Kier W 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) ONLINE
0207	Rosalyn Anderson-Howell Tu 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) LEF 0135
0208	Kimberly Bethke M 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) TYD 0111
0210	TC Lloyd Tu 3:00pm - 4:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) ONLINE
0212	Sarah Lauritsen W 11:00am - 12:20pm *Restricted to First Semester BSOS Majors.*	Seats (Total: 27) TWS 0236

0305	Christopher Lester W 6:00pm - 7:50pm *Restricted to OMSE - College Success Scholars. Class will meet in TWS 1310.*	Seats (Total: 20) HBK 0123
0306	Christopher Lester W 6:00pm - 7:50pm *Restricted to OMSE - College Success Scholars. Class will meet in Room TWS 1310.*	Seats (Total: 20) HBK 0125
0501	Christie De Leon, Julia Hillbrand W 2:00pm - 3:50pm *Restricted to students in the College of Education.*	Seats (Total: 20) EDU 1315
0503	Brittani Berry, Kristen Cabrera Th 2:00pm - 3:50pm *Restricted to transfer students in the College of Education.*	Seats (Total: 20) EDU 2101
0604	Shannon Bate **Meets September 2, 2022 - November 11, 2022** F 10:00am - 11:30am *Restricted to engineering incoming freshmen.*	Seats (Total: 20) EGR 3106
0801	Raymond Ranker **Meets September 7, 2022 - November 19, 2022** M 2:00pm - 3:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) JMZ 2125
0802	Amanda Dennis **Meets September 7, 2022 - November 19, 2022** Tu 2:00pm - 3:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) BPS 1234
0804	Gregory Shaffer **Meets September 7, 2022 - November 19, 2022** Th 3:30pm - 5:30pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) SQH 2113

0806	Steven Young **Meets September 7, 2022 - November 19, 2022** W 3:30pm - 5:20pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) CHE 2116
0807	Tara Feikes **Meets September 7, 2022 - November 19, 2022** Tu 11:00am - 12:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) LEF 1171
0808	Greyson Cox **Meets September 7, 2022 - November 19, 2022** Tu 2:00pm - 3:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) VMH 1107
0812	Sarah Wilson **Meets September 7, 2022 - November 19, 2022** Tu 12:30pm - 2:20pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) JMZ 2117
0820	Madison Thurston **Meets September 7, 2022 - November 19, 2022** Th 12:30pm - 2:20pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) LEF 1221

0826	Mary Bell **Meets September 7, 2022 - November 19, 2022** M 3:30pm - 5:20pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) LEF 1171
0841	Thomas Steen **Meets September 7, 2022 - November 19, 2022** Tu 3:30pm - 5:20pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) PLS 1180
0850	Lisa Scheeler, Alana Ebert-Zavos **Meets September 7, 2022 - November 19, 2022** W 1:00pm - 2:50pm *For first semester Letters and Sciences students interested in business. Part of the Business Exploration Series.*	Seats (Total: 20) PLS 1162
0851	Alana Ebert-Zavos **Meets September 7, 2022 - November 19, 2022** M 1:00pm - 2:50pm *For first semester Letters and Sciences students interested in business. Part of the Business Exploration Series.*	Seats (Total: 20) CHE 2140
0852	Alexander Willie **Meets September 7, 2022 - November 19, 2022** W 3:00pm - 4:50pm *For first semester Letters and Sciences students who are interested in STEM (science, technology, mathematics, engrineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) JMZ 2207

0854	Ulysses Crawford **Meets September 7, 2022 - November 19, 2022** M 2:00pm - 3:50pm *For first semester Letters and Sciences students who are interested in STEM (Science, Technology, Mathematics, Engineering) majors or careers. Part of the STEM Exploration Series.*	Seats (Total: 20) EGR 1110
0857	Steve Leonard **Meets September 7, 2022 - November 19, 2022** W 1:00pm - 2:50pm *Restricted to First Semester Letters and Sciences students.*	Seats (Total: 20) ASY 3217
0901	Ariel Brathwaite Tu 9:00am - 10:50am *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) SYM 0209
0902	Thomas Gleason F 3:00pm - 4:50pm *Restricted to Physics majors 19020 and 1902E.*	Seats (Total: 20) PHY 2211
0903	Eden Garosi Tu 2:00pm - 3:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code: 12031).*	Seats (Total: 20) HBK 1108
0904	Gene Ferrick, Harini Patel Th 10:00am - 11:50am *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) KNI 1206
0905	Chan Lin Tu 11:00am - 12:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) ARC 1127
0906	Marsha Guenzler-Stevens Tu 1:00pm - 2:50pm *Restricted to Biofire.*	Seats (Total: 22) EDU 3236

0908	Victoria Fitzgerald M 2:00pm - 3:50pm *Restricted to Neuroscience majors - 04250.*	Seats (Total: 22) LEF 0135
0909	Stephanie Bent W 10:00am - 11:50am *Restricted to BSCI-BCHM-CHEM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) PLS 1162
0910	Rachel Blanset M 2:00pm - 3:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) JMZ 2207
0912	Clay Smith W 12:00pm - 1:50pm *Restricted to any CMNS majors.*	Seats (Total: 21) KEY 0120
0915	Shiloh Ortiz M 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) LEF 1171
0916	Annie Montgomery Tu 10:00am - 11:50am *Restricted to BSCI-BCHM-CHEM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) KNI 1206
0917	Claire Barlow Tu 11:00am - 12:50pm *Restricted to any CMNS majors.*	Seats (Total: 20) PLS 1113
0918	Imani Burwell Th 2:00pm - 3:50pm *Restricted to Neuroscience majors (04250).*	Seats (Total: 22) JMZ 2120
0919	Evelyn Covington Th 3:00pm - 4:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 22) JMZ 0205
0920	Rebecca Riley F 1:00pm - 2:50pm *Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).*	Seats (Total: 20) PLS 1162

0925	Steven Girson W 1:00pm - 2:50pm	Seats (Total: 20) LEF 1221
	Restricted to BSCI-CHEM-BCHM majors or UMB-Nursing students (major code 12031).	
0926	Jennifer Carrion M 2:00pm - 3:50pm	Seats (Total: 22) AJC 2119
	Restricted to BioFIRE students.	
0927	Mayra Torres W 12:00pm - 1:50pm	Seats (Total: 22) SYM 0209
	Restricted for BioFire students.	
1101	Kristen Stack W 10:00am - 11:15am	Seats (Total: 18) ARC 1123
	Restricted to ARCH majors only; cannot be dropped without permission from college.	
1103	Jordan Fields W 12:00pm - 1:15pm	Seats (Total: 18) ARC 1123
	Restricted to ARCH majors only; cannot be dropped without permission from college.	
1201	Tracy Kennedy M 1:00pm - 2:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1202	Erin Caporellie M 3:00pm - 4:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1203	Felicia Low Tu 9:30am - 10:45am	Seats (Total: 16) SPH 0225
	Restricted to Public Health Science major (12140) only. Cannot be dropped without permission from the college.	
1205	Lindsey Winter Tu 11:00am - 12:15pm	Seats (Total: 16) SPH 0227
	Restricted to Kinesiology majors (08351) only. Cannot be dropped withou permission from the college.	

1206	Bryan Pointer W 1:00pm - 2:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1207	Renee Stokes Th 9:30am - 10:45am	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1208	Kendyl Oliver Th 2:00pm - 3:15pm	Seats (Total: 16) SPH 0225
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1209	Catherine Donohoe M 11:00am - 12:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1210	Taylor Sanders W 3:00pm - 4:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1211	Caitlin Minch W 11:00am - 12:15pm	Seats (Total: 16) SPH 0225
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1212	April Carroll Th 11:00am - 12:15pm	Seats (Total: 16) SPH 0227
	Restricted to SPHL majors only; cannot be dropped without permission from college.	
1501	Heather Buchanan Th 2:00pm - 3:50pm	Seats (Total: 20) JMZ 1224
	Restricted to College of Agriculture and Natural Resources, First Year or Transfer Students.	
1503	Amanda Clougherty M 2:00pm - 3:50pm	Seats (Total: 20) EGR 3114
	Restricted to College of Agriculture and Natural Resources, First Year or Transfer Students.	

FC01	Megan Masterson M 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3221
FC02	Jonathan Molnar M 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) PHY 4221
FC03	Dan Hairfield F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 3233
FC04	Stephanie Olson F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 3233
FC05	Calvin Oates W 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 3233
FC06	Gloria Chin Quee W 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1313
FC07	Elizabeth Homick Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1313
FC08	Sharon Vanwright M 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) BPS 1232
FC09	Sharon Vanwright F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 0135
FC10	Liza Lebrun F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMP 1109

FC11	Jalah Townsend F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 2154
FC12	Tracy Kennedy M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3219
FC13	Jamilya Parson M 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3219
FC14	Denise McHugh Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 0118
FC15	Ali Kuczka F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMP 2202
FC16	Foster McDaniel F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 20) SQH 1111
FC17	Erik Hanson Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 2154
FC18	Shelby Byrd Tu 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 0122
FC19	Jordan Borchert F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) PLS 1111
FC20	Felicia Low Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 1124

FC21	Eric Johnson Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 2154
FC22	Kenneth Kokason Th 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) LEF 1220
FC23	Marinel Martinez-Benyarko M 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3219
FC24	Tori Shay Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3219
FC25	Myles Alexander F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 3233
FC26	Lori Kader Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) PLS 1146
FC27	Lynn Truong Th 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1321
FC28	Jamie Brennan F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) SQH 1111
FC29	Gennifer Godley Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ITV 1100
FC30	Madeline Reich Tu 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CHE 2145

FC31	Vickie Hill F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3203
FC32	Moya Malcolm Th 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) SQH 1101
FC33	Drew Barker Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CHE 2145
FC34	Jordan Borchert Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 2120
FC35	Akhila Vishnubhotla F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) HBK 0109
FC36	Tori Shay M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 2120
FC37	Thomas Steen M 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CHE 2145
FC38	Jaden Mikoulinskii Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) MTH 0405
FC39	Kim Gonzalez F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 19) VMH 1107
FC40	Fabian Faccio W 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) KNI 1105

FC41	Latoya Hicks Tu 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) ASY 3219
FC42	Jeany Cadet Tu 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) SQH 1111
FC43	Joel Solorzano F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CSI 2118
FC44	Heather Gray Tu 3:00pm - 4:15pm *Restricted to students in Freshman Connection.*	Seats (Total: 20) JMP 1109
FC45	Malina Blanton Heng W 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CHE 2145
FC46	Joel Solorzano F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) CSI 2118
FC47	Ginny Hutcheson Tu 4:30pm - 5:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 1102
FC48	Jeany Cadet Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) MTH B0423
FC49	Courtney Holder Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMP 1202
FC50	Timothy Farrell Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMP 2202

FC51	Christopher Villalobos Tu 6:00pm - 7:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1320
FC52	Mariah Bauer F 10:00am - 11:15am *Restricted to students in Freshmen Connection*	Seats (Total: 20) CSI 2118
FC53	Lauren Neimeyer M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) PHY 4221
FC54	Alexander Mullen F 1:00pm - 2:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1313
FC55	Jennifer Bradley F 11:30am - 12:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EDU 1315
FC56	Heather Gray W 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 2120
FC57	Alyssa Bower W 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) TWS 1313
FC58	Sarah Lauritsen Th 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) EGR 1102
FC59	Jessica Senasack M 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) JMZ 0118
FC60	Joshua Poston Th 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) HBK 1112

FC61	Susan Johnston F 10:00am - 11:15am *Restricted to students in Freshmen Connection.*	Seats (Total: 20) HBK 0109
FC62	Andrew Muir Tu 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 20) MTH 0102

UNIV100V **The Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Credit only granted for: EDCP108O or UNIV100. Formerly: EDCP108O.

Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.

0101	Tasha Vanterpool M 3:30pm - 5:30pm *This section is reserved for VETERANS ONLY. DD214 required for verification.*	Seats (Total: 25) Location: TBA

UNIV106 **The Transfer Student in the University**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Restriction: Must be a first-semester transfer student. Credit only granted for: UNIV106 or EDCP108G.

This course is designed to assist students in making a successful transition to the University of Maryland (UMD) and to serve as an extended orientation to campus living and learning.

0101	Melissa Hyre Tu 11:00am - 12:15pm	Seats (Total: 20) EGR 3114
0201	JV Sapinoso Th 2:00pm - 3:15pm	Seats (Total: 20) LEF 1222
0301	Keanu Stovall W 3:00pm - 4:15pm	Seats (Total: 20) EDU 3236

UNIV108 **Business Exploration Series Colloquium**

Credits: 1 Grading Method: Regular

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

For students interested in pursuing a business career. Students learn the fundamentals of career development and what the internship/job search process entails.

FC01	Lisa Scheeler, Devyn Sturdavant M 4:30pm - 5:20pm W 4:30pm - 5:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) ESJ 1215 PHY 0405	Discussion
FC02	Lisa Scheeler, Devyn Sturdavant M 4:30pm - 5:20pm W 4:30pm - 5:20pm *Restricted to students in Freshmen Connection.*	Seats (Total: 22) ESJ 1215 PHY 0405	Discussion

UNIV110 **Grand Challenges of Our Time**

(Perm req)

Credits: 1 Grading Method: Regular

Restriction: Must have Freshmen standing.

An overview of the issues of our time, including COVID-19, Black Lives Matter, Climate Change and Voting.

Contact department for information to register for this course.

UNIV120 **Home and Travel Safety**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Students make a significant investment of time and money to prepare for their career. One accident can change a life forever. This class will enable students to take simple steps to prevent and/or respond to common emergencies in the home and while traveling.

Class meets at Maryland Fire and Rescue Institute facility: 4500 Campus Drive, Classroom 1.

0101	Diane May **Meets October 17, 2022 - December 5, 2022** M 6:00pm - 8:00pm	Seats (Total: 40) Location: TBA	

UNIV269 **Connecting Across Cultures**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV269A **Connecting Across Cultures; Cultural Realities of Spain**

Credits: 1 | Grading Method: Regular, Pass-Fail, Audit | General Education: DVCC

An examination of culture to guide study abroad students through the stages of cross cultural adjustment and to promote cultural competency by providing the motivation, knowledge and skills necessary to work with diverse individuals and teams.

Contact department for information to register for this course.

UNIV362 **Designing Your Life after College**

Credits: 2 | Grading Method: Regular

Restriction: Must have earned a minimum of 60 credits.

Helps students anticipate and prepare for changes in finances, social life, health, and career dynamics they are likely to experience as they transition from college to working full-time. It focuses on understanding what resources students have as they enter the workforce as critical for navigating post-graduation changes successfully. It offers an overview of financial, risk management and professional development approaches to increase students' confidence regarding post-graduation decisions; in addition, it develops their creative problem solving and reflection skills to help them align the outcomes of their decisions with their values.

Click here for more information on the Designing Your Life After College including Faculty & Speaker biographies.

0101	Ann Holmes, Dave Kenny, Robert Fritzen Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 0118
0102	Julie Wright, Amanda Grimes Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 0120
0103	Kenneth Kokason Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 0122
0105	Parker Kleb, Richard Blackman Tu 4:30pm - 6:30pm	Seats (Total: 25) VMH 1207
0106	Tori Shay, Michael Stokvis Tu 4:30pm - 6:30pm	Seats (Total: 25) JMZ 0103
0108	Gerry Strumpf, Chad Nazworth Tu 4:30pm - 6:30pm	Seats (Total: 25) PHY 2208

UNIV389J **Special Topics in Undergraduate Studies; Federal Independent Study Projects**

(Perm req)

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit

Courses will focus on interdisciplinary topics and will be planned in cooperation with Undergraduate Studies.

Prerequisite: Permission of instructor.

0101	Naz Beyranvand, Joan Burton Class time/details on ELMs	Seats (Total: 25) ONLINE
0201	Naz Beyranvand, Joan Burton Class time/details on ELMs	Seats (Total: 25) ONLINE

UNIV399 **Experiential Learning in Undergraduate Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular

Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.

0101	Naz Beyranvand, Joan Burton Class time/details on ELMs	Seats (Total: 10) ONLINE
0201	Naz Beyranvand, Joan Burton Class time/details on ELMs	Seats (Total: 10) ONLINE

URSP Urban Studies and Planning Fall 2022

URSP250 **The Sustainable City: Exploring Opportunities and Challanges**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: IE General Education: DSSP, SCIS

An exploration, through an interdisciplinary approach, of a number of issues related to making cities more sustainable in terms of environmental protection, economic opportunity, and social justice. The course assist students to develop skills in critical analysis and systems thinking and to use those skills in analyzing sustainability related problems and potential solutions, and to expand students' understanding of the political implications of crafting and moving towards a sustainable urban future.

0101	Marccus Hendricks M 11:00am - 12:15pm W 11:00am - 12:15pm	Seats (Total: 26) TWS 1310 TWS 1310	 Discussion
0102	Marccus Hendricks M 11:00am - 12:15pm W 11:00am - 12:15pm	Seats (Total: 26) TWS 1310 TWS 1310	 Discussion

0103	Marccus Hendricks	Seats (Total: 26)	
	M 11:00am - 12:15pm W 11:00am - 12:15pm	TWS 1310 TWS 1310	 Discussion

URSP399I **Independent Study**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP601 **Research Methods**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Recommended: An undergraduate-level statistics course; and familiarity with Microsoft Excel. Formerly: URBS601.

Use of measurement, statistics, quantitative analysis, and micro-computers in urban studies and planning.

0101	Chengri Ding	Seats (Total: 20)
	Th 4:00pm - 6:40pm	ARC 0111

URSP603 **Land Use Planning: Concepts and Techniques**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Credit only granted for: URSP603, URBS680, or URBS603. Formerly: URBS603.

Land use concepts and definitions: legal context for planning; markets and planning; planning for housing; community services, employment, utilities, and transportation; zoning; subdivision regulations; growth management; plan implementation.

0101	Dawn Jourdan	Seats (Total: 20)
	Th 1:00pm - 3:40pm	ARC 1111

URSP605 **Planning History and Theory**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of key, selected major events and issues in U.S. planning history and the development of the [planning profession; exploration of major themes in planning theory and practical applications of them; and analysis of the relationship of history and theory.

0101	Ariel Bierbaum	Seats (Total: 25)
	M 4:00pm - 6:40pm	HJP 2217

URSP606 **Planning Economics**

(Perm req)

Credits: 3 Grading Method: Regular

Restriction: Must not have completed URSP630. Credit only granted for: URSP606, URBS606, or URBS630. Formerly: URBS606.

Resource allocation in a market economy, the nature of market failures, and the justifications for public sector intervention. The limits and possibilities for planning in a market economy.

0101	Chengri Ding	Seats (Total: 15)
	M 4:00pm - 6:40pm	SQH 2113

URSP688I **Recent Developments in Urban Studies; The Comprehensive Plan**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	David Rouse	Seats (Total: 15)
	M 7:00pm - 9:40pm	ARC 1125

URSP688L **Recent Developments in Urban Studies; Planning Technology**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

An introduction to technologies that are vital for contemporary planners. Whether planners work at the local, state, or federal level, for-profit or non-profit, urban or rural, or with targeted neighborhoods or regional entities, the necessity for planners to, at a minimum, understand technologies is paramount. These technologies are used to plan, develop, manage, and analyze geographic areas and their respective populations. Given the past, present, and assuredly future ubiquity of Geographic Information Systems (GIS), this course's major focus will be on developing analytical and visual GIS skills. Parallel to acquiring initial GIS skills using the most current and widespread software platforms for GIS, students will employ real-life 'hands-on' experience alongside instruction for analysis and visualization both in the static/desktop environments as well as in more dynamic/web environments.

0101	Andrew Bernish	Seats (Total: 20)
	Tu 7:00pm - 9:40pm	ONLINE

URSP688N **Recent Developments in Urban Studies; Urban Transportation Planning and Policy**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Hiroyuki Iseki	Seats (Total: 12)
	W 4:00pm - 6:40pm	KEY 0117

URSP688X **Recent Developments in Urban Studies; Planning, Policy, and Public Education**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Ariel Bierbaum	Seats (Total: 15)
	Tu 4:00pm - 6:40pm	PKT 112V

URSP688Z **Recent Developments in Urban Studies; Planning & Design in the Multicultural Metropolis**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Examination of selected current aspects of urban affairs and planning, including, for example, in the United States or neighborhood preservation in Russia. Location of course may be off-campus.

0101	Willow Lung Amam	Seats (Total: 16)
	W 4:00pm - 6:40pm	ARC 1119

URSP708 **Community Planning Studio**

(Perm req)

Credits: 6 Grading Method: Regular, Audit

The Community Planning Studio is a "capstone" course intended to provide students with an opportunity to apply their knowledge and skills to analyze current, pressing planning issues, in a selected community and to produce a report containing recommendations for addressing those issues. In essence, students act as a consulting team for a community client.

0101	Clara Irazabal Zurita	Seats (Total: 16)
	Tu 4:00pm - 6:40pm	ARC 1127
	Th 4:00pm - 6:40pm	ARC 1127

URSP709 **Field Instruction**

Credits: 3 Grading Method: Regular, Audit

Students will satisfy a 300-hour internship (20 hours for 15 weeks during the spring, 25 hours a week for 12 weeks during the summer). Suitable internships are approved by the Internship Coordinator or Instructor; they involve a significant amount of planning work (preferably in the student's are of interest) and provide an appropriate on-site supervisor. The Internship Coordinator will assist students in finding a suitable internship, but the ultimate responsibility rests with each student. Whether the internship is paid or not is a matter to be worked out between the student and the organization.

0101	Casey Dawkins Class time/details on ELMs	Seats (Total: 20) ONLINE
0102	Instructor: TBA Class time/details on ELMs	Seats (Total: 5) ONLINE
1001	Gerrit Knaap Class time/details on ELMs	Seats (Total: 20) ONLINE
1201	Chengri Ding Class time/details on ELMs	Seats (Total: 20) ONLINE
1401	Marccus Hendricks Class time/details on ELMs	Seats (Total: 20) ONLINE
1501	Ariel Bierbaum Class time/details on ELMs	Seats (Total: 20) ONLINE
1601	Hiroyuki Iseki Class time/details on ELMs	Seats (Total: 20) ONLINE
1701	Instructor: TBA Class time/details on ELMs	Seats (Total: 20) ONLINE
1801	Instructor: TBA Class time/details on ELMs	Seats (Total: 20) ONLINE
2103	Willow Lung Amam Class time/details on ELMs	Seats (Total: 20) ONLINE
2107	Clara Irazabal Zurita Class time/details on ELMs	Seats (Total: 20) ONLINE

URSP788 **Independent Study in Urban Studies and Planning**

(Perm req) Credits: 1-3 Grading Method: Regular, Audit

Directed research and study of selected aspects of urban affairs.

Contact department for information to register for this course.

URSP798 **Readings in Urban Studies and Planning**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Directed readings in selected aspects of urban affairs and planning.

Contact department for information to register for this course.

URSP799 **Master's Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

URSP804 **Advanced Planning Theory**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Relations between theory and practice in planning. Ways of developing and using knowledge in collective action. Challenges to organizing for planning, finding knowledge useful for planning and balancing social attachments with free inquiry.

0101	Casey Dawkins	Seats (Total: 15)
	Tu 1:00pm - 3:40pm	ARC 1127

URSP898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Selected topics in Urban Studies and Planning. Topics will vary with the instructor.

Contact department for information to register for this course.

URSP899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

This course is a required course for the Ph.D program in Urban and Regional Planning and Design.

Contact department for information to register for this course.

USLT Latina/o Studies Fall 2022

Please visit http://amst.umd.edu/programs/course/ for more course information.

USLT201 **U.S. Latina/o Studies I: An Historical Overview to the 1960's**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit CORE: SH, D

Interdisciplinary course focusing on demographics, terminology and social constructs of race, class, ethnicity, indigeneity, gender, and sexuality associated with the historical and political roots of US Latinidades. Examines the formation, evolution an adaptation of US Latina/o communities as critical field of inquiry.

0101	Robert Chester	Seats (Total: 25)
	TuTh 11:00am - 12:15pm	TWS 0134

USLT369A **Special Topics in Study Abroad III; Thinking in Andalusian: The Antonio Machado Family of Seville**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

USLT498D **US Latina/o Studies: Special Topics; Central Americans and the United States: Culture, Politics, and Community**

Credits: 3 Grading Method: Regular

Specific content to be announced when courses are offered.

Cross-listed with AMST498C. Credit only granted for AMST498C or USLT498D. With attention to history, memory, politics, and culture, explores the relationships, conflicts, and exchanges of people and power between the United States and the Central American isthmus. Through literature, feature films, documentary films, theatre, poetry, and other mediums, the course investigates the role of the US government and military, as well as US corporate interests and US-backed dictatorships, in the culture, politics, and economy of nations including El Salvador, Nicaragua, Guatemala, and Honduras.

0101	Robert Chester	Seats (Total: 20)
	TuTh 9:30am - 10:45am	TWS 0134

USLT498E **US Latina/o Studies: Special Topics; African American and Latino Social, Cultural and Political Relations: 1940 to Present**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific content to be announced when courses are offered.

Cross-listed with AASP498O. Credit granted for USLT498E or AASP498O.

0101	Jason Nichols	Seats (Total: 30)
	W 4:00pm - 6:30pm	KEY 0116

USLT498R **US Latina/o Studies: Special Topics; Revolutions and Diasporas**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Specific content to be announced when courses are offered.

Cross-listed with AMST498B. Credit granted for USLT498R or AMST498B. This course investigates how revolutions in Latin America influenced the history of US immigration, refugee, and asylum policies and how they changed US history, culture, experience, geography, politics and the future.

0101	Nancy Mirabal	Seats (Total: 25)
	MW 3:00pm - 4:15pm	TWS 0328

VMSC Veterinary Medical Sciences Fall 2022

VMSC610 **Recombinant Viral Vectors**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Restriction: Permission of instructor.

A comprehensive presentation of information on the molecular biology of the most relevent viral vectors developed to date and give insight on vector contruction, purification and utilization. Also intended for students in virology and related fields as well as to those interested in the application of viral vectors to basic research.

0101	George Belov	Seats (Total: 10)
	Contact instructor or department for details.	

VMSC698 **One Health Seminar**

Credits: 1-3 Grading Method: Regular

"One Health" is an approach that recognizes that health of people is closely connected to health of animals and our shared environment. Outstanding leaders in the field will present ideas for analysis and discussion among class members. Topics will include presentation and discussion of scientific publications, current topics, and new methodologies.

Class will meet in 1216 Gudelsky Building.

0101	Mostafa Ghanem	Seats (Total: 20)
	Th 11:00am - 12:00pm	GVC 1216

VMSC699 **Special Problems in Veterinary Medical Sciences**

Credits: 1-4 Grading Method: Regular

Independent study of a specific problem related to veterinary medicine such as a disease outbreak, application of a new diagnostic test or a risk analysis related to animal health. Targeted at veterinary medicine (DVM) students and other graduate students with a background in veterinary medicine.

Contact department for information to register for this course.

VMSC758 **Journal Club in Comparative Biomedical Sciences**

Credits: 1 Grading Method: Regular, Audit

The Journal Club in Comparative Biomedical Sciences is a graduate-level student-driven course. Each student will pick a peer-reviewed journal article for individual presentation and group discussion. The articles will cover a wide variety of biomedical science topics based on student and group interests.

0101	Nathaniel Tablante M 11:00am - 12:00pm	Seats (Total: 10) Location: TBA

VMSC760 **Immunology of Infectious Diseases**

Credits: 3 Grading Method: Regular, Audit

An advanced graduate level course that focuses on the cutting-edge knowledge of immunity and recent research breakthroughs in the interactions between host immune system and infectious pathogen, and vaccine development

0101	Meiqing Shi TuTh 1:45pm - 3:00pm	Seats (Total: 25) Location: TBA

VMSC780 **Parasites of Medical and Veterinary Importance**

Credits: 2 Grading Method: Regular

Restriction: Permission of instructor.

Provides students with the basic knowledge of parasites as well as research advancement in important parasites of humans and animals. Particular attention will be given to parasite biology, pathogenesis, and host responses to parasitic infection. A selection of parasites of medical and veterinary importance will be specifically covered with emphasis on recent research breakthroughs in the field.

Contact department for information to register for this course.

VMSC799 **Thesis Research**

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

VMSC898 **Pre-Candidacy Research**

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

VMSC899 **Dissertation Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

WGSS Women, Gender, and Sexuality Studies Fall 2022

WGSS200 **Introduction to WGSS: Gender, Power, and Society**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP

Credit only granted for: WMST200 or WGSS200. Formerly: WMST200.

Examines constructions of race, class, sexuality, ability, and gender relations from a social science multi-disciplinary perspective. The course interrogates the ways that systems of hierarchy and privilege are created, enforced, and intersect through the language of race, class, sexuality, and national belonging. The course will provide students with the skills to examine how systems of power manifest in areas such as poverty, division of labor, health disparities, policing, violence. In addition to examining the impact of systems of power, students will reflect on their own location within the exercise of racialized, and gendered power relations. This course encourages students to understand and critique these systems both personally and politically.

0101	Neel Ahuja TuTh 11:00am - 12:15pm	Seats (Total: 50) ARC 1101
0201	Adreanna Nattiel Class time/details on ELMs	Seats (Total: 30) ONLINE
0301	Jaime Madden MWF 10:00am - 10:50am	Seats (Total: 25) KEY 0102

WGSS250 **Introduction to WGSS: Art and Culture**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Credit only granted for: WMST250 or WGSS250. Formerly: WMST250.

Provides students with a critical introduction to the ways that art and art activism have served as a conduit to understanding and challenging systems of inequity and practices of normativity. Interrogating the categories of gender, sexuality, race, class, ability, the course will provide students with an examination of how artists have responded to pressing social justice issues of their eras. While the course centers visual art, students will also engage genres such as music, plays, literature, digital and performance art as arenas of social change.

0101	Rahma Haji MWF 9:00am - 9:50am	Seats (Total: 30) ONLINE
0201	Eva Peskin Class time/details on ELMs	Seats (Total: 30) ONLINE
0301	Caitlin Leach MWF 10:00am - 10:50am	Seats (Total: 30) SQH 1105
0401	Sarah Scriven MWF 11:00am - 11:50am	Seats (Total: 25) ASY 3221

0501	Renee Scott Class time/details on ELMs	Seats (Total: 30) ONLINE
0801	Melissa Stevens TuTh 9:30am - 10:45am	Seats (Total: 25) ONLINE
1001	Melissa Stevens TuTh 2:00pm - 3:15pm	Seats (Total: 30) ONLINE
1101	Jocelyn Coates TuTh 3:30pm - 4:45pm	Seats (Total: 30) KNI 1103
1201	Jocelyn Coates TuTh 11:00am - 12:15pm	Seats (Total: 30) TYD 1102
FC01	Jaime Madden MW 7:30pm - 8:45pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) TWS 1321
FC02	Jaime Madden MW 3:00pm - 4:15pm *Restricted to students in Freshmen Connection.*	Seats (Total: 25) JMZ 0120

WGSS255 **Reading Women Writing**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHU, DVUP

Cross-listed with: ENGL250. Credit only granted for: ENGL250, WMST255 or WGSS255. Formerly: WMST255.

Explores literary and cultural expressions by women and their receptions within a range of historical periods and genres. Topics such as what does a woman need in order to write, what role does gender play in the production, consumption, and interpretation of texts, and to what extent do women comprise a distinct literary subculture. Interpretation of texts will be guided by feminist and gender theory, ways of reading that have emerged as important to literary studies over the last four decades.

0101	Annika Thiem TuTh 9:30am - 10:45am	Seats (Total: 30) TWS 0236

WGSS265 **Constructions of Manhood and Womanhood in the Black Community**

Credits: 3 | Grading Method: Regular, Pass-Fail, Audit | General Education: DSHS, DVUP

Cross-listed with: AASP265. Credit only granted for: WMST265, AASP298B, WGSS265 or AASP265. Formerly: WMST265.

Investigates the ways that African Americans are represented and constructed in public and private spheres and explores the social constructions and representations of Black manhood and womanhood from various disciplinary perspectives.

0101	Michelle Rowley	Seats (Total: 40)
	TuTh 12:30pm - 1:45pm	ONLINE

WGSS269G **Special Topics in Study Abroad II; Topics on Gender Studies**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS269I **Special Topics in Study Abroad II; Social Problems: Women's Issues (In Indian Society)**

Credits: 1-6 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS269W **Special Topics in Study Abroad II; Social Problems: Women's Issues Field Study**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS275 **World Literature by Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHU, DVUP

Cross-listed with: CMLT275. Credit only granted for: WMST275, CMLT275 or WGSS275. Formerly: WMST275.

Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

0201	Andrea Knowles	Seats (Total: 30)
	MW 2:00pm - 3:15pm	TWS 1107

WGSS290 **Bodies in Contention**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS, DVUP, SCIS

Credit only granted for: WMST298D or WGSS290. Formerly: WMST298D.

Explores the contributions of feminist scholarship in framing and resolving contemporary controversies concerning gendered bodies. It includes the ways in which knowledge about the human body has been shaped by cultural ideas of gender, race, sexuality and ability.

0101	Jessica Mathiason TuTh 11:00am - 12:15pm	Seats (Total: 30) HBK 0123	
0201	Jessica Mathiason TuTh 12:30pm - 1:45pm	Seats (Total: 30) HBK 0123	

WGSS298L **History of Sexuality in America**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Cross-listed with: HIST213. Credit only granted for: HIST213, WMST298L or WGSS298L.

Explores the social construction of sexualities from the first colonial settlement to the modern era in the United States. Analyzes the implications of these understandings for power relations in U.S history.

0101	Clare Lyons MW 10:00am - 10:50am W 11:00am - 11:50am	Seats (Total: 23) TWS 0320 TWS 1321	Discussion
0102	Clare Lyons MW 10:00am - 10:50am W 1:00pm - 1:50pm	Seats (Total: 23) TWS 0320 TLF 2108	Discussion
0103	Clare Lyons MW 10:00am - 10:50am W 2:00pm - 2:50pm	Seats (Total: 23) TWS 0320 TLF 2108	Discussion

WGSS301 **Introduction to Research in Gender, Race, and Queer Studies**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Permission of the Harriet Tubman Department of Women, Gender, and Sexuality Studies; Must be enrolled in a Harriet Tubman Department of Women, Gender, and Sexuality Studies program. Credit only granted for: WMST301 or WGSS301. Formerly: WMST301.

Primarily a research skills-building course, focusing especially on interdisciplinary approaches to research. Encompasses basic library skills, conceptualizing a research question. The course is not designed to teach a specific research method but rather to as an introduction to a range of research methods commonly employed in feminist, critical race, and queer studies with some opportunity to begin to apply them. Considers the ethical dilemmas and political implications embedded in research projects.

0101	Elsa Barkley Brown	Seats (Total: 15)
	M 12:00pm - 2:30pm	TLF 2108

WGSS302 **Feminist, Critical Race, and Queer Theories**

Credits: 3 Grading Method: Regular, Audit

Prerequisite: 6 credits in LGBT, WMST, WGSS or courses that are cross-listed with these. Credit only granted for: WMST302, WGSS302 or WMST400. Formerly: WMST302.

Introduces students to some of the major concepts in feminist, critical race, and queer theories. It examines the questions: What is theory? What forms does theory take? What is the relationship between theory and practice? What is the role of theory in political and social action? In art? In personal life? What does it mean to do theory?

0101	Sydney Lewis	Seats (Total: 30)
	MW 3:00pm - 4:15pm	SPH 0307

WGSS314 **Black Women in United States History**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Restriction: Sophomore standing or higher. Cross-listed with: AASP313. Credit only granted for: AASP313, WMST314 or WGSS314. Formerly: WMST314.

Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

For Fall 2020: Also offered as HIST329E. Credit granted for AASP313, HIST329E, or WMST314.

0101	Elsa Barkley Brown	Seats (Total: 40)
	TuTh 3:30pm - 4:45pm	ONLINE

WGSS319D **Workshops in Gender, Race, and Queer Studies; Disability Justice**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Topics will change each semester but all workshops will be designed to have students think transdisciplinarily and interdisciplinarily about a specific topic or issue and to understand how differing approaches shape knowledge. Assignments within the workshops are aimed at students developing their skills in forms of presentation beyond the written essay, e.g. oral argument, digital or creative projects. Collaborative work must be central to all workshop courses; these collaborative activities do not preclude the possibility of individual research/writing assignments but the Workshops should emphasize conversation, debate, collaboration, and critique more so than the individually authored essay.

Credit only granted for WGSS319D or WMST319D.

0101	Jessica Mathiason TuTh 3:30pm - 4:45pm	Seats (Total: 30) SQH 1121

WGSS336 **Psychology of Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit General Education: DSHS

Prerequisite: PSYC100. Cross-listed with: PSYC336. Credit only granted for: PSYC336, WMST336 or WGSS 336. Formerly: WMST336.

A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

0101	Monica Kearney MW 11:00am - 11:50am Class time/details on ELMs	Seats (Total: 110) BRB 1101 ONLINE

WGSS348B **Literary Works by Women; American Autobiographics**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

The context, form, style and meaning of literary works by women.

Cross-listing with LGBT359A and ENGL359A. Credit only granted for ENGL359A, LGBT359A, or WGSS348B. Prerequisite: Two lower-level English courses,at least one in literature; or permission of ARHU-English department. Repeatable to 9 credits if content differs.

0101	Martha Nell Smith TuTh 3:30pm - 4:45pm	Seats (Total: 25) TWS 1106

WGSS358 **Undergraduate Teaching Assistantship**

(Perm req)

Credits: 3 Grading Method: Regular, Pass-Fail

Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WGSS course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Restriction: Permission of ARHU-Women's Studies department. Repeatable to 9 credits. Students work under the supervision of a faculty mentor to assist with an undergraduate LGBT or WMST course while also becoming conversant in feminist, critical race, and queer pedagogical debates and approaches.

Contact department for information to register for this course.

WGSS360 **Caribbean Women**

Credits: 3 Grading Method: Regular

Cross-listed with: AASP361. Credit only granted for: WGSS360, WMST360 or AASP361. Formerly: WMST360.

An interdisciplinary analysis of the lives and experiences of women across the Caribbean region, through an examination of their roles in individual, national, social and cultural formations. Special emphasis on contemporary women's issues and organizations.

0101	Michelle Rowley TuTh 3:30pm - 4:45pm	Seats (Total: 30) ONLINE

WGSS368 **Undergraduate WGSS Internship**

(Perm req)

Credits: 3-6 Grading Method: Regular, Pass-Fail

Undergraduate Internship in a position related to women, gender, and sexuality studies and overseen by a member of the WGSS faculty.

Restriction: Permission of ARHU-Women's Studies department; and must have Learning Proposal approved by Women's Studies Academic Advisor; and junior standing or higher. Repeatable to 9 credits if content differs. Formerly: WMST386. Undergraduate Internship in a position related to Women's Studies and overseen by a member of the WMST faculty.

0101	Elsa Barkley Brown Contact instructor or department for details.	Seats (Total: 3)
0601	Alexis Lothian Contact instructor or department for details.	Seats (Total: 3)
0901	Michelle Rowley Contact instructor or department for details.	Seats (Total: 3)
1101	Ashwini Tambe Contact instructor or department for details.	Seats (Total: 3)
1201	Ruth Enid Zambrana Contact instructor or department for details.	Seats (Total: 3)
1601	Instructor: TBA Contact instructor or department for details.	Seats (Total: 3)
1701	Sydney Lewis Class time/details on ELMs	Seats (Total: 3) ONLINE
1801	Jessica Mathiason Contact instructor or department for details.	Seats (Total: 3)
1901	Eva Hageman Contact instructor or department for details.	Seats (Total: 3)

2001	Neel Ahuja	Seats (Total: 3)
	Contact instructor or department for details.	

WGSS369G **Special Topics in Study Abroad III; Gender and Post Socialist Transformation in Central Europe**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Special topics course taken as part of an approved study abroad program.

Contact department for information to register for this course.

WGSS370 **Black Feminist Thought**

Credits: 3 Grading Method: Regular

Prerequisite: 1 course in AASP; or 1 course in WGSS. Cross-listed with: AASP371. Credit only granted for: WMST370, WGSS370 or AASP371. Formerly: WMST370.

Examines the ideas, words and actions of Black women writers, speakers, artists, and activists in the United States.

0101	Zenzele Isoke	Seats (Total: 30)
	MW 10:00am - 11:15am	SQH 4103

WGSS378 **Undergraduate Research and Creative Works Assistantship**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

The Undergraduate Research Assistant provides an opportunity to develop a deep understanding of specific research methods and topics while involving the student in a professional role that requires ethical responsibility. The precise syllabus for the URA will be personalized to the student's interests and abilities, as well as to the specific research project and the Faculty Mentor's expectations. The student will meet with the Faculty Mentor prior to enrolling for a URA in order to determine the responsibilities and learning goals for the semester.

Restriction: Permission of the Harriet Tubman Department of Women, Gender, and Sexuality Studies. Repeatable to 9 credits if content differs. Formerly: WMST378.

Contact department for information to register for this course.

WGSS444 **Feminist Critical Theory**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: WMST200, WGSS200, WMST250, WGSS250, or ENGL250. Cross-listed with: ENGL444. Credit only granted for: ENGL444, WMST444 or WGSS444. Formerly: WMST444.

Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.

Contact department for information to register for this course.

WGSS487 **Advanced Research Seminar in Gender, Race, and Queer Studies**

(Perm req) Credits: 3 Grading Method: Regular

Prerequisite: WMST300 or WGSS301; and WMST400 or WGSS302. Credit only granted for: WMST487 or WGSS487. Formerly: WMST487.

A research seminar that allows students to focus their developed skills on a single topic of their own choosing while meeting regularly in seminar to discuss, critique, support, and learn from their peers' projects and assessments. Students choose a topic based on their own interests and prior coursework, perform advanced research appropriate to the question, and formulate an appropriate method of presentation of their research findings. The culminating presentation may take the form of a written paper or a creative, digital, or activist project.

0101	Eva Hageman	Seats (Total: 15)
	TuTh 2:00pm - 3:15pm	SQH 4103

WGSS488B **Senior Seminar; Health Inequality and Social Determinants: How Race, Ethnicity, Class, and Gender Matter**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

0101	Ruth Enid Zambrana	Seats (Total: 10)
	F 11:00am - 1:30pm	SQH 4103

WGSS489 **Individual Research in Gender, Race and Queer Studies**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS489A **Individual Research in Gender, Race and Queer Studies; WGSS Honors Thesis Writing**

(Perm req) Credits: 3 Grading Method: Regular, Pass-Fail

Allows students who wish to continue the research they began in WMST487 or WGSS487 to do so under the guidance of an individual faculty mentor. Each student taking this class will develop an individual syllabus based on the project on which they are working, with the goal of developing a work of scholarship specific to their interests that can serve as an entry point for graduate study or professional work.

Contact department for information to register for this course.

WGSS497 **Professional Development**

Credits: 1 Grading Method: Regular, Pass-Fail, Audit

Prerequisite: 12 credits in LGBT, WMST or WGSS courses. Restriction: Must have completed a minimum of 75 credits. Credit only granted for: WMST497 or WGSS497. Formerly: WMST497.

To assist students in thinking about the next step post-undergraduate degree and to think long term about the importance of their WMST degree in lifelong career, personal, and political development. This course will provide students an opportunity to reflect upon where they are going beyond the B.A. and develop ways to communicate how their coursework and experiences at UMD have prepared them for the next step. The course will focus on the practicalities of resume writing, internship or job searches, etc. but also on the specific challenges/opportunities of translating interdisciplinary training to professional internship or beyond-the B.A. sites. Students may take this course in preparation for their internship (working to select an appropriate internship that can translate well to post-undergraduate aspirations) or they may take it post-internship as they determine their post-graduation steps.

0101	Sydney Lewis	Seats (Total: 20)
	F 2:00pm - 3:15pm	ONLINE

WGSS498 **Advanced Special Topics in Women, Gender, and Sexuality Studies**

(Perm req)

Credits: 1-3 Grading Method: Regular

Advanced study of a thematic topic in women, gender, and sexuality studies.

Contact department for information to register for this course.

WGSS498A **Advanced Special Topics in Women, Gender, and Sexuality Studies; Community Interventions: Domestic Violence I**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a thematic topic in women, gender, and sexuality studies.

Restricted to Psychology or Women Studies majors only. Cross-listing with WGSS498A. Credit only granted for PSYC318D, WGSS498A, or WMST498A. Theories and researchrelated to domestic violence and interventions with abused womenwill bestudied, and students will think critically regarding ethical andmulticultural issues related to domestic violence. Community resources and strategies for ending domestic violence in the United States will be discussed.

0101	Karen O'Brien	Seats (Total: 35)
	MW 10:30am - 11:45am	BPS 1236

WGSS498D **Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Cross-listed with PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, and WMST698D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller	Seats (Total: 15)
	W 6:00pm - 8:30pm	JMZ 1215

WGSS498J **Advanced Special Topics in Women, Gender, and Sexuality Studies; Contemporary Chinese and Chinese American Cinema on Women**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a thematic topic in women, gender, and sexuality studies.

Cross-listed with ARTH488C and FILM429C. Credit only granted for ARTH488C, FILM429C, or WGSS498J. This course examines the representation of Chinese and Chinese-American women in contemporary cinema from mainland China, Taiwan, Hong Kong, and the Chinese diaspora. The changing images of women in a spectrum of genres, by some of the most representative directors, will be studied through the application of major critical concepts in visual culture and cinema studies.

0101	Jason Kuo	Seats (Total: 14)
	W 3:00pm - 5:30pm	ASY 3219

WGSS498L **Advanced Special Topics in Women, Gender, and Sexuality Studies; Women in Israel**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a thematic topic in women, gender, and sexuality studies.

Contact department for information to register for this course.

WGSS498Y **Advanced Special Topics in Women, Gender, and Sexuality Studies; Dickinson, Erotics, Poetics, Biopics: Some (Queer) Ways We Read Poetry**

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

Advanced study of a thematic topic in women, gender, and sexuality studies.

Prerequisite: Two English courses in literature; or permission of ARHU-English department. Cross-listing with ENGL439D and LGBT448Y. Credit only granted for ENGL439D, LGBT448Y, WGSS498Y, or WMST498Y.

0101	Martha Nell Smith	Seats (Total: 15)
	TuTh 12:30pm - 1:45pm	TWS 0236

WGSS499 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Pass-Fail, Audit

Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST601 **Approaches to Women's Studies I**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Prerequisite: WMST400; or students who have taken courses with comparable content may contact the department.

Examines two fundamental concepts in women's studies: intersectionality and interdisciplinarity. Looks at how feminisms have shaped and been shaped by knowledge-production within and across disciplinary boundaries, cultures, and paradigms. Develops an appreciation of intersectional theory as a critical research tool and as a set of responses to issues of power, domination, oppression and other loci of difference.

0101	Michelle Rowley	Seats (Total: 12)
	W 5:00pm - 7:30pm	ONLINE

WMST618 **Feminist Pedagogy**

(Perm req)

Credits: 3 Grading Method: Regular

Examines the higher education classroom from a feminist perspective through theory and analysis. Students are graduate teaching assistants with the Women's Studies department.

Prerequisite: permission of department. For WMST major onlys.

0101	Neel Ahuja	Seats (Total: 4)
	Contact instructor or department for details.	

WMST619 **Women's Studies Teaching Practicum**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

Provides Women's Studies graduate teaching assistants with ongoing regular faculty supervision during the semesters the students are teaching WMST courses.

Prerequisite: permission of department. For WMST majors only.

0101	Zenzele Isoke	Seats (Total: 10)
	Contact instructor or department for details.	

WMST628 **Women's Studies Colloquium**

(Perm req)

Credits: 1 Grading Method: Sat-Fail

An intensive advanced exploration of current problems and issues in women's studies.

0101	Neda Atanasoski	Seats (Total: 18)
	W 3:00pm - 4:45pm	SQH 4103

WMST698B **Special Topics in Women's Studies; Health Inequality and Social Determinants: How Race, Ethnicity, Class, and Gender Matter**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced worik in selected topics in Women's Studies.

0101	Ruth Enid Zambrana	Seats (Total: 5)
	F 11:00am - 1:30pm	SQH 4103

WMST698D **Special Topics in Women's Studies; Sex, Gender, and Sexuality in the Islamic World**

Credits: 3 Grading Method: Regular, Audit, Sat-Fail

Advanced worik in selected topics in Women's Studies.

Cross-listed with PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, and WGSS498D. Credit only granted for PERS498M, CMLT679D, HIST419C, PERS689M, RELS429B, WGSS498D, or WMST698D.

0101	Matthew Miller	Seats (Total: 15)
	W 6:00pm - 8:30pm	JMZ 1215

WMST698E **Special Topics in Women's Studies; Approaches to Race and Media**

(Perm req)

Credits: 3 Grading Method: Regular, Audit

Advanced worik in selected topics in Women's Studies.

Cross-listed with AMST628C. Credit only granted for AMST628C or WMST698E. This class looks at foundational and new interdisciplinary scholarship on race and media. The course will explore topics such as media production, distribution, markets, representation, and audiences.

0101	Eva Hageman	Seats (Total: 15)
	W 4:00pm - 6:30pm	TWS 0134

WMST699 **Independent Study**

(Perm req)

Credits: 1-3 Grading Method: Regular, Audit

Research and writing on specific readings on a topic selected by the student which is approved and supervised by a faculty member of the Women's Studies Department.

Contact department for information to register for this course.

WMST709 **Directed Independent Reading for Major Field Exam**

(Perm req)

Credits: 1-4 Grading Method: Sat-Fail

Directed reading in preparation for Major Field Exam. In consultation with their advisors, students identify, analyze, critique and synthesize material relevant to their major fields of inquiry. Grading will be based on combinations of oral performance in the bi-weekly meetings, production of annotated bibliographies and synthetic papers.

Contact department for information to register for this course.

WMST799 **Masters Thesis Research**

(Perm req)

Credits: 1-6 Grading Method: Sat-Fail

Contact department for information to register for this course.

WMST898 **Pre-Candidacy Research**

(Perm req)

Credits: 1-8 Grading Method: Regular

Contact department for information to register for this course.

WMST899 **Doctoral Dissertation Research**

(Perm req)

Credits: 6 Grading Method: Sat-Fail

Contact department for information to register for this course.